Meeting Minutes Savannah River Site Citizens Advisory Board (CAB) – Combined Committees Meeting Savannah, Georgia (GA) May 18, 2015

Monday, May 18, 2015 Attendance:

Stakeholders CeeCee Anderson Marolyn Parson Cleveland Latimore Gary Zimmerman Frank Redmond Rick Arkin

CAB Chair Harold Simon opened the meeting. He introduced CAB Facilitator, Tina Watson, who reviewed the Meeting Rules of Conduct. She stated a public comment period was scheduled for the end of the meeting. She reminded CAB members and meeting attendees to sign-in at the back table. She asked the CAB members to state their names before speaking and then reviewed the meeting agenda. She introduced Mrs. Jesslyn Pearson, Time Solutions, to begin her presentation.

PRESENTATION: Work Plan Update - Jesslyn Pearson, Times Solutions

Mrs. Pearson, Time Solutions, stated the purpose of her presentation was to provide the CAB and Committee Chairs with a status update for 2015 Work Plan completion. She provided an update of the CAB Work Plan and highlighted each committee's progress so far for the year; however, there were no questions about upcoming presentations or the Work Plan from any CAB members.

Strategic & Legacy Management (S&LM) Committee Overview – James Streeter, Vice Chair

CAB member James Streeter welcomed everyone to Savannah, GA and listed the S&LM Committee members. He reviewed the committee's focus and provided a recommendation status update. He said recommendation 323 was open and the S&LM Committee did not have any pending or draft recommendations. CAB member Streeter announced the next S&LM Committee meeting was scheduled for June 9, 2015, from 4:30–6:20 at the New Ellenton Community Center in New Ellenton, South Carolina (SC). He introduced Dr. Terry Michalske, Savannah River National Laboratory (SRNL), to begin his presentation.

PRESENTATION: Savannah River National Laboratory Update - Dr. Terry Michalske, SRNL

Dr. Michalske stated the purpose of his presentation was to complete a S&LM Committee Work Plan topic by discussing various ongoing activities at SRNL. He said SRNL had been operating over 60 years, with the original purpose to exclusively establish science and technology for all the activities at SRS. He said SRNL continued to play that role; however, SRNL began focusing on national and international missions when it was designated as a National Laboratory ten years ago. Dr. Michalske provided an SRNL overview stating there were approximately 832 employees. He said a majority of the work currently performed at SRNL was for customers and activities outside of SRS. He referenced safety stating he was extremely proud SRNL was the safest

national laboratory for ten out of the eleven years. He explained having a safe laboratory showed customers work was being conducted in a thoughtful manner. Dr. Michalske said the core nuclear capabilities SRNL focused on included: 1) Environmental Remediation and Risk Reduction, 2) Nuclear Materials Processing and Disposition, 3) Nuclear Detection, Characterization, and Assessments, and 4) Gas Processing, Storage, and Transfer Systems. He said SRNL was critical to the success of the Department of Energy – Environmental Management. He said over the past five years, approximately five billion dollars had been saved due to innovative cleanup techniques developed at SRNL were being implemented around the country. Dr. Michalske mentioned he was very focused on getting the best and brightest next generation of scientists and engineers involved at SRNL. He said one of the things done this year at SRNL was the restructuring of the Minority Serving Institution Program. He explained that the program restructuring would better align those institutions' research programs and students with the actual needs of the environmental cleanup program across the country. He mentioned SRNL was leading various recovery efforts at the Waste Isolation Pilot Plant. He discussed national security, which he commented was about half SRNL's portfolio. He explained that SRNL continued to be the world's experts for tritium. Dr. Michalske pointed to a picture of a tritium processing unit that was recently sold to the University of Rochester. He stated SRNL continued to operate the FBI radiological crime evidence laboratory. He referenced cyber technology and mentioned SRNL was building its relationship with Fort Gordon and Cyber Command because SRNL is in charge of the cyber testing for National Nuclear Security Administration (NNSA). He said for the entire nuclear complex, SRNL was responsible for ensuring adequate cyber protection. He said SRNL created specialized facilities that enabled SRNL employees to travel around the world to collect, analyze, package, and safely store materials. Dr. Michalske discussed clean energy, which he said was a small portion of SRNL's focus. He said clean energy would never be SRNL's main objective; however, SRNL tried to contribute to clean energy initiatives though hydrogen research, "SmartGrid" technology with Clemson University, safe nuclear fuel, natural gas leadership, and solar research. Dr. Michalske stated SRNL worked internationally with approximately 50. He said recently SRNL was asked to permanently relocate two employees to Japan to continue assisting with Fukushima recovery. Dr. Michalske explained SRNL was legally defined as a special entity in the government known as a Federally Funded Research and Development Center. He said by law, SRNL must operate for public good. He mentioned SRNL was forbidden to provide any special access or influence from any particular company and must legally operate as a resource for public good. Dr. Michalske explained one way SRNL focused on public good was by looking for opportunities within the private sector to utilize special technologies and approaches that could be beneficial to the competitiveness of the United States. He mentioned private sector work was not SRNL's main job; however, it was an important job. Dr. Michalske stated SRNL currently had approximately 100 partnerships with private companies to help the companies develop products that could help or change the competitiveness of the United States. He commented SRNL recently published its strategic plan, which was available online before he discussed how Environmental Management expressed the need for a new collaborative facility. Dr. Michalske explained a Nuclear Chemical Manufacturing Collaborative (NCMC) was needed in order to adapt advanced manufacturing technologies for DOE and nuclear cleanup missions. He commented that SRNL was a great laboratory doing excellent work regionally, nationally, and around the world.

CAB member Louis Walters asked Dr. Michalske if any research at SRNL focused on clean coal. Dr. Michalske said SRNL was not involved in clean coal but he said the best way to understand clean coal technology would be to go to the National Energy Technology Laboratory, which was the DOE laboratory was focusing on fossil fuel work. CAB member Walters also asked if SRNL contacted local technical colleges and manufacturing industries for collaboration with research for the NCMC. Dr. Michalske said the planning effort SRNL was currently involved in for the NCMC would eventually focus on how to bring local schools, industry, and SRNL together in the future.

CAB member Streeter asked if the Minority Serving Institution Program was implemented at other national laboratories and if students would be coming to SRNL. Dr. Michalske said the Minority Serving Institution Program was a national program for minority serving institutions across the United States; however, within the program, SRNL required the students' research be coupled to a laboratory that is conducting environmental work. Dr. Michalske explained that the requirement helped to expose students to environmental problems that they should be focused on in the future. Dr. Michalske said in addition to the Minority Serving Institution Program, SRNL worked closely with regional Minority Serving Institutions. Dr. Michalske mentioned for the past few years, SRNL held an annual conference where nine Historically Black Universities (HBU's) spend two days at SRNL. He said the conference helped increase the internship opportunities at SRNL.

CAB member Daniel Kaminski asked Dr. Michalske if licenses or generated revenue occurred from the patents for some of the processes developed at SRNL. Dr. Michalske said the generated amount for royalty revenues within the last year at SRNL was approximately four million dollars. He said some of the royalty funds gets shared with SRNL staff. He said the generated revenue would not support SRNL, but it was the mechanism by which technology was put back into the market place.

CAB member David Hoel said it was commendable that SRNL provided services to other DOE sites and international places with nuclear contamination problems. CAB member Hoel commented that providing services around the world most likely involved bringing samples, possibly nuclear samples, back to SRNL for analysis. CAB member Hoel asked Dr. Michalske to explain how those samples, and waste generated from conducting research of the samples, were managed. CAB member Hoel also asked if the waste stayed at SRS to become DOE's responsibility for management and disposal or were samples returned to the original location. Dr. Michalske stated that most of the locations SRNL assisted had analytical capabilities so SRNL was not essentially conducting analysis for other locations, but mostly helping other locations develop necessary processes. Dr. Michalske said there were some specialized cases where SRNL needed small amounts of materials to conduct experiments; however, in those situations, the small amount of waste was processed and disposed after the research was conducted. CAB member Hoel then referenced how samples of High Level Waste from Hanford would not be compatible with the High Level Waste in tanks at SRS. CAB member Hoel provided a hypothetical question asking if a sample of High Level Waste from Hanford would be returned to

Hanford after the necessary research was conducted at SRNL. Dr. Michalske said the material would be returned if it was not compatible, but if waste was compatible, it would be taken care of at SRS.

PRESENTATION: SRS Cold War Preservation Program Update - Mary Beth Reed, New South Associates

Ms. Reed said she was delighted to be able to present to the CAB again said the purpose of her presentation was to complete a 2015 S&LM Work Plan topic by providing an update on the SRS Cold War Preservation Program. She said the Preservation Program was driven by the National Historic Preservation Act (NHPA), which was passed in the 1960's. Ms. Reed explained that the NHPA asked agencies to identify and manage historic buildings, structures, and sites that are stewarded by agencies. She said the second step was also to look at those sites and determine how to incorporate historic preservation within an agencies project planning. She said various buildings, structures, and district sites were surveyed and identified in order to plan projects. She mentioned the approach of SRS's 50th anniversary increased the amount of focus towards preserving SRS's Cold War history under the NHPA and Section 106 compliance. Ms. Reed stated that DOE recognized the Site's Cold War facilities and equipment as potentially significant and began its Cold War inventory as required under the NHPA. She said DOE-SR worked with the State Historic Preservation Office, Advisory Council, and local stakeholders to develop a programmatic agreement to identify, treat, and manage resources and artifacts that dated from SRS's selection to the end of the Cold War. She stated the Cold War Preservation Program identified facilities for preservation, wrote histories, collected and managed artifacts, and conducted public outreach. She discussed program objectives for the previous year beginning with resource identified for preservation. She said there were 220 Cold War resources identified at SRS; however, no new Cold War resources such as buildings or structures were identified in 2014. She discussed documentation stating the largest objective for 2014 was to complete the separations thematic study "Bringing it to Form." She mentioned the study was completed in September 2014 and delivered to the State Historic Preservation Office. She discussed curation at SRS, which she stated was a big part of taking care of the objects, documents, and artifacts that reference SRS's history. Ms. Reed said recently a collection of aerial photographs and large tank models were accepted in the curation facility. She discussed public outreach stating partnerships with Savannah River Nuclear Solutions Communications and tours of the curation facility helped further develop public outreach efforts. She referenced compliance and stated that her job was to keep up with current training as well as ensure that DOE remains compliant with Section 106 of the NHPA. She said work was underway to update the Cultural Resources Management Plan (CRMP), which she commented was similar to the CAB's Work Plan for moving forward in future work. Ms. Reed stated in 2015 she hoped a research and development study about SRNL would further develop. She said other plans for 2015 involved a new photographic negative curation internship program, engaging new partners in Heritage Tourism quarterly meetings, working with the SRS Heritage Foundation, and continuing to provide DOE-SR assistance with compliance requirements.

CAB member Walters asked if any outreach had been done to the local high schools in SC and GA, and if so, which schools. Ms. Reed said at that time there had not been any engagement with high schools; however, she said she hoped as the program matured it would be able to do more with people. She said she understood the need for engaging local schools in SRS historic preservation since various artifacts would be wonderful teaching tools.

CAB member Mary Weber mentioned members of the S&LM Committee discussed at the April S&LM meeting possibly setting up a curation facility tour. CAB Facilitator Watson stated a tour was in the works; however, a date had not been established and more information would be provided to the CAB members very soon.

CAB member Hoel said in April he asked what the nomination status was for any of the facilities at SRS that were considered "National Register eligible." CAB member Hoel pointed out that Ms. Reed's presentation said those facilities were considered eligible for a historical district. He commented those facilities had been eligible since 2004 when the CRMP was written and signed. CAB member Hoel then asked what activities occurred over the last 11 years in terms of DOE's consideration to nominate any or all of those facilities for the National Register. He commented that when he asked the same question in April, DOE-SR gave him a copy of the CRMP. CAB member Hoel mentioned the CRMP stated DOE would consider nomination; however, he said he was unable to tell from the CRMP if progress occurred in regard to nominating facilities to the National Register. CAB member Hoel asked how often the CRMP had to be updated. Ms. Reed answered that the CRMP was updated every five years. CAB member Hoel asked if the new CRMP or any past versions mentioned the National Register status.

Ms. Reed explained the NHPA asked federal agencies to consider what buildings, sites, or structures were or were not eligible. Ms. Reed said under Section 106, federal agencies could say a facility was "an eligible property", but the agency did not have to list the facility on the National Register. Ms. Reed mentioned DOE and other agencies typically did not list their historic buildings, sites, or structures on the National Register formally with a nomination; however, they tend to use Section 106 and treat the facility as an eligible building, site, or structure. She said structures were treated the same way whether listed on the National Register or not, but the agency did not have to complete the nomination. Ms. Reed said she would approach DOE again to see if they were interested in pursuing a formal nomination for that particular Cold War district.CAB member Hoel asked why DOE-SR decided not to nominate facilities to the National Register. Ms. Reed said she would have to ask DOE.

Administrative and Outreach (A&O) Committee Overview - Louis Walters, A&O Committee Member

CAB member Walters stated the purpose of the A&O Committee before listing the committee members. He said the CAB Membership Campaign was over for this year; however, he said the CAB Support Team accepted applications throughout the year. He said copies of the fall Board Beat Magazine were available, but the spring issue would be delayed until later in the

summer. CAB member Walters encouraged CAB members to make contributions to the Board Beat Magazine before he provided information for how to access the CAB's Facebook page and website.

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

CAB member Tom Barnes listed the FD&SR Committee members before providing a recommendation status update. He said he wanted to change the status of recommendations 315, 317, 327, and 328 from "open" to "closed;" however, he said recommendation 329 should remain open for further discussion at the June Committee meeting. He announced the next FD&SR Committee meeting was scheduled for June 9, 2015, at the New Ellenton Community Center in New Ellenton, SC. He emphasized participation at committee meetings and said he would greatly appreciate his committee members attending.

Waste Management (WM) Committee Overview - Louis Walters, WM Committee Member

CAB member Walters read the committees purpose and listed committee members. He provided a recommendation status update, stating the WM Committee had no draft, open, or pending recommendations. He announced the next WM Committee meeting was scheduled for June 2, 2015, at the New Ellenton Community Center in New Ellenton, SC.

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

CAB member Larry Powell welcomed everyone to Savannah, GA stating it was such a "cool" historic town. He read the committees purpose before listing committee members. He provided a recommendation status update stating he would like to change the status of recommendations 307, 319, 320, 324, and 325 from "open" to "closed." He said DOE-SR responded to each of the open recommendations and he felt since the responses were sufficient all five recommendations should be closed. CAB member Powell stated there was a draft recommendation titled "Funding Increases for Processing Materials at SRS." He introduced the Recommendation Manager, CAB member Dawn Gillas, to begin discussion of the draft recommendation.

Draft Recommendation Discussion

"Funding Increases for Processing Materials at SRS"

CAB member Gillas described the purpose of the draft recommendation stating SRS received fuels from foreign sources; however, she explained some sources paid partial amounts of money for SRS to take the fuels while some countries did not pay at all. CAB member Gillas said the intent of the draft recommendation was for EM to ask if NNSA could either provide DOE with extra funds to help store and disposition the foreign materials or ask NNSA to renegotiate rates for the higher income countries in order for EM to receive some funding. She listed each item number of the draft recommendation. She stated the first item of the draft recommendation involved EM working with the appropriate agencies to increase rates for any Spent Nuclear Fuel (SNF) and materials shipped to SRS to allow for additional cost recovery by EM. CAB member Gillas said the second item of the draft recommendation requested NNSA provide at least partial funding to EM for processing and dispositioning any SNF, especially SNF from other than high income countries. CAB member Gillas said the last item of the draft recommendation asked DOE to apply the extra funding to repair, replace, and improve facilities at SRS used to store and process the nuclear materials. CAB member Gillas then asked if there was any discussion about the draft recommendation.

CAB member Walters asked if there was any indication of how much money had already been paid and by which countries. Ms. Maxcine Maxted, DOE-SR, said DOE received a fee from the high income countries. Ms. Maxted said the fee, established in the Federal Register, was based on the amount of uranium within materials received at SRS. Ms. Maxted explained the fee only covered a portion of receipt of the material an did not cover the entire disposition cost for the material. Ms. Maxted said the rates were changed in 2012 when the Federal Register put in an incremental increase. Ms. Maxted mentioned DOE-SR should receive another increase in January 2016 on the amount paid per kilogram of uranium. CAB member Walters asked what amount would make DOE-SR "whole" in regards to other services provided that were not receiving funding support. Ms. Maxted said she could not give a total amount because she did not know when the federal repository would be available. CAB member Walters also said the phrase "high income countries" should be deleted or changed because he felt it was politically incorrect. Mr. Jim Giusti, DOE-SR, said the CAB's recommendation would not change terms such as "high income countries," which were defined by the federal government to identify who would or would not pay for services that SRS provided. Mr. Giusti reminded the CAB they should be advising DOE about ways to improve rather than trying to change the non-proliferation policy of the United States.

CAB member Daniel Kaminski asked if a funding summary was available to show the funding SRS received versus any associated overhead costs to treat, dispose, and store the material. Ms. Maxted said that information existed; however, the document would have to be approved by DOE-SR security before being provided to CAB. Ms. Maxted said the information would be a one page table showing the range of money SRS received from 2010 to 2015. CAB member Kaminski asked what was the variable cost of received materials. Ms. Maxted said it was hard to say because each fuel was different so the cost of each fuel would also be different.

CAB member Gillas asked if the chart would show the amount of money SRS received versus how much money was necessary for DOE to continue operations. Ms. Maxted said the table only showed the amount of money that has come in, but Ms. Maxted said depending on overhead rates, it cost DOE approximately 40 to 45 million dollars a year to operate L-Basin.

CAB member Barnes asked Ms. Maxted to provide examples of high income countries and other than high income countries. Ms. Maxted said high income countries were Canada, Germany, and Italy, while other than high income countries would be Jamaica or Chile.

CAB member Hoel said in item number one of the draft recommendation the word "additional" should be changed to "full." He also suggested removing "at least partial" in item number two. CAB member Gillas said she agreed with changing item number two; however, she said she did not agree with the change to item number one. In item number one, CAB Vice Chair Nina Spinelli suggested deleting "additional" and not replacing the word. CAB member Gillas and CAB member Hoel both agreed with CAB Vice Chair's suggestion.

CAB member Louie Chavis asked if materials had to stay in other than high income countries if those countries could not afford to send the materials to SRS. CAB member Gillas said not necessarily. She said the other than high income countries still would not have to pay and those are the countries the draft recommendation was suggesting NNSA pay for.

CAB member Powell thanked the CAB for providing input. He stated he would like the draft recommendation to be voted on the following day. He announced the next NM Committee meeting was scheduled for June 2, 2015, at the New Ellenton Community Center; however, he said he would be unable to attend since that was his 25th wedding anniversary. A copy of this recommendation will be attached to this document.

Public Comments

Ms. Cee Cee Anderson, Georgia Women's Action for New Directions (GAWAND), said she was very disappointed there was only one CAB meeting held in Georgia this year. Ms. Anderson said she hoped in the future more CAB Full Board meetings would be held in Georgia. She mentioned having more Georgia meetings would help balance the amount of meetings between GA and SC.

~Meeting adjourned

Meeting Minutes Savannah River Site Citizens Advisory Board (CAB) - Full Board Meeting Savannah, Georgia May 19, 2015

Tuesday, May 19, 2015 Attendance:

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

DOE Terry Spears, DOE-SR Jim Folk, DOE-SR Maxcine Maxted, DOE-SR Jim Giusti. DOE-SR Pat McGuire, DOE-SR de'Lisa Carrico, DOE-SR Avery Hammett, DOE-SR Sandra Waisley, DOE-SR Agency Liaisons/Regulators Kyle Bryant, EPA Heather Cathcart, SCDHEC **Trey Reed, SCDHEC** Susan Fulmer, SCDHEC Kim Brinkley, SCDHEC

Sean Hayes, GADNR

<u>Contractors</u> Terry Michalske, SRNL Mike Griffith, SRNS Kristin Huber, SRNS Stuart MacVean, SRR **Bill Barnes**, SRR Jesslyn Pearson, Time Solutions James Tanner, Time Solutions **Tina Watson**. Time Solutions

Stakeholders Cee Cee Anderson Marolyn Parson Tom Clements Frank Redmond Tricia Kilgore Gary Zimmerman

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 March 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 16 votes.

CAB Chair Simon discussed the Environmental Management Site Specific Advisory Board (EMSSAB) Chairs' Meeting that was held in Augusta, GA in April. He said David Borak, EMSSAB Designated Federal Official, Mayor of Augusta Hardie Davis, Jr., Terry Spears, DOE-SR, and he provided remarks during the meeting. He thanked DOE-HQ staff, DOE-SR, the CAB Support Team, and contractors for the meeting arrangements during the Chairs' Meeting. CAB Chair Simon explained each EMSSAB had a chance to discuss one accomplishment and one important ongoing activity at the respective site. He said the SRS CAB shared how the most important program at SRS was the Liquid Waste Program. Regarding the accomplishment, CAB Chair Simon said an online training program was being developed by DOE-SR and the CAB Support Team. He commented once the training program was fully developed it could be shared with the public as an outreach tool. CAB Chair Simon mentioned the EM budget was discussed at the Chairs' Meeting. He said safety culture program was also discussed, which included topics about organizational culture, safety culture, and safety conscious work environments. CAB Chair Simon said he felt an organizations leadership was responsible for establishing the appropriate behavior, tone, and safety within the workforce. He said he was under the impression SRS was undergoing a training and assessment. He requested an update on the training assessment and asked if the training assessment was currently ongoing. Mr. Spears said DOE-SR completed safety conscious work environment training in the past; however, the improvement of the safety culture at SRS was an ongoing process. Mr. Spears said DOE-SR planned to continue strengthening its safety culture in the future. CAB Chair Simon mentioned part of the Chairs' Meeting focused on disposition. He said a recent report recommended the establishment of a separate repository for some of the high level waste and spent nuclear fuel (SNF) owned by DOE. CAB Chair Simon introduced CAB Vice Chair Nina Spinelli to discuss the draft recommendation developed at the Chairs' Meeting. She stated the purpose of the draft recommendation was for DOE to accelerate and be more transparent about any planned activities that could resume the safe disposal of transuranic (TRU) waste

at the Waste Isolation Pilot Plant (WIPP), while also identifying temporary safe storage locations for the TRU waste. CAB Chair Simon asked if there were any comments about the draft recommendation. There were no comments; however, he explained the recommendation would be voted on at the July Full Board meeting.

CAB Facilitator, Tina Watson, reviewed the Meeting Rules of Conduct and meeting agenda. She reminded CAB members an updated copy of the Internal Processes, CAB contact sheet, and committee member breakdown sheet was at each of their seats. She said public comment periods were scheduled throughout the meeting and asked everyone interested in making a public comment to sign up at the back table. She asked everyone to place cell phones and pagers on silent before introducing Mr. Terry Spears, Deputy SRS Manager, to begin his agency update.

Agency Updates

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

Mr. Spears welcomed everyone to Savannah, GA and thanked the CAB members for their continued interest in SRS and recommendations to the Department. He thanked members of the public for attending the meeting and he mentioned this would be the only downstream meeting this year. He announced the new SRS Manager, Jack Craig, was in the process of moving to the area and would begin his official duties in June. Mr. Spears said Dr. David Moody, the outgoing SRS Manager, regretted he was unable to attend the meeting; however, Mr. Spears shared a brief comment from Dr. Moody before he provided a safety topic. He encouraged everyone to be aware of the rising temperatures and to take proper precautions while spending time outdoors. He continued his agency update by discussing the Liquid Waste Program. He said Savannah River Remediation (SRR) was making progress in pouring vitrified glass waste canisters against the annual goal of 156 canisters. He said SRR was approaching the 90th canister being poured this fiscal year. Mr. Spears said construction was halfway complete on the 32 million gallon Saltstone Disposal Unit (SDU) 6. Relative to tank closure, Mr. Spears said a resolution was reached for the Federal Facilities Agreement (FFA) dispute and following several months of negotiation and completion of a formal dispute resolution process an agreement was reached on April 30, 2015, to complete activities for grouting and closure of tank 12 by September 30, 2015. He stated the resolution also extended the closure milestone for tank 16 to May 31, 2016, which was an 8-month extension. Mr. Spears said within the resolution DOE-SR agreed to pursue commercial sources for commercial pre-treatment of salt waste to supplement current salt waste processing capabilities by issuing an Expression of Interest by July 31, 2015. He explained the Expression of Interest would explore possibilities to accelerate tank closure through the application of innovative approaches whenever possible. Mr. Spears said construction of the Salt Waste Processing Facility (SWPF) was 83 percent complete. Mr. Spears addressed an emerging mercury issue within the Liquid Waste System. He stated a higher-than-expected level of mercury was detected recently in the high-level salt waste streams at SRS. He said liquid waste in the high-level waste tanks contained mercury from historical canyon operations. He explained SRR closely monitored for mercury as part of liquid waste treatment and disposal operations to ensure the safety and health of workers, public, and the environment. He noted while work continued, DOE-SR was taking extra precautions to prevent exposure to the mercury; however, no workers have been exposed to mercury and no disposal permit limits have been exceeded. Mr. Spears said DOE-SR planned to keep the CAB informed on the development and planned to provide a presentation relative to the mercury issue at the Waste Management Committee on June 2, 2015. He discussed environmental stewardship stating remediation of the D-Area Ash Basins continued and erosion control measures were being installed. He stated construction of the outlet structure within one of the ash basins had begun and he commented the finished project would remediate and consolidate three large ash basins and an adjacent landfill. Mr. Spears discussed the Nuclear Materials Stabilization Program stating H-Canyon was continuing Readiness Assessments for processing SNF. He stated HB-Line was working through completion actions to recover from the agitator event in March and once those actions were completed, HB-Line would continue processing plutonium for feed material to MOX. He said K-Area continued destructive examinations of 3013 plutonium containers to ensure plutonium was and continued to be safely stored. He stated a Readiness Assessment was being conducted for building 235-F to allow replacement of glovebox components to begin risk reduction activities. Lastly, Mr. Spears mentioned how L-Area was conducting start-up testing for the new shielded transfer system to allow receipt of Canadian fuels. He noted L-Area continued to support fuel receipts from foreign and domestic research reactors and fuel shipments to H-Canyon for processing. He referenced Energy Savings Program stating on May 11, 2015, there was a groundbreaking ceremony for phase two of the Biomass Cogeneration Facility (BCF). Mr. Spears said the modification added a second boiler and supported systems for the 20 megawatt BCF. He said AMERESCO would begin construction in June with operations scheduled to begin in spring 2016.

CAB member Daniel Kaminski said he recently read in the newspaper about valves failing relating to transferring waste to tanks. He asked Mr. Spears for clarification on the root cause of the waste transfers; however, Mr. Spears asked Mr. Stuart MacVean, SRR President, to address the question. Mr. MacVean said SRR investigated the valve, which had a preventative maintenance plan specifically assigned to that valve. He explained this particular situation was a premature failure of the valve seats. Mr. MacVean said the standing replacement timeframe for those valves was 15 years based on material construction of the valve seats themselves, but he said this valve failed at approximately the ten-year timeframe. Mr. MacVean said SRR was evaluating the material and the preventative maintenance program to ensure other valves were addressed, and if necessary replaced, before any future valve seats failed. He stated pieces of the valve seat were undergoing testing at SRNL. CAB member Kaminski asked if there were similar valve seats still in use. Mr. MacVean said there were similar valves, which was why SRR was working to upgrade valves over time. Mr. MacVean stated SRR was prioritizing various factors to replace valves. CAB member Kaminski thanked Mr. MacVean for his response before mentioning how he recently discussed his position on the CAB with "born and raised" Aiken residents from his neighborhood. CAB member Kaminski said he was not trying to stir up ancient history;

however, he said some of his neighbors were concerned about high cancer rates in Aiken County, which the neighbors seemed to associate with SRS. CAB member Kaminski clarified he had never heard of the cancer rate issue and commented he had no factual basis for the neighbors' concerns; however, he asked if there were any studies or data he could provide to help dispel the myth. Mr. Jim Giusti, DOE-SR, said DOE-SR had a dose reconstruction study that would clarify cancer rates were not directly associated with SRS; however, Mr. Giusti said he would contact someone from DOE's medical department who could provide a presentation about health studies conducted at SRS and impacts offsite. Mr. Spears also commented that DOE-SR conducted an annual Environmental Monitoring Report, which was annually published, released to the public, and presented to the CAB. Mr. Spears said the releases from SRS were very low and well within all protection standards for the public and the environment. Mr. Spears mentioned the Department of Labor (DOL) administered a program where members of the public claiming to be impacted by SRS operations can be evaluated.

CAB member David Hoel commended DOE, EPA, and SCDHEC for reaching a resolution for tanks 12 and 16; however, he shared his opinion that with all the tank closure delays, he felt the remainder of the tank closure schedule was in jeopardy. CAB member Hoel asked when DOE-SR intended to approach regulators about resetting the tank closure schedule. Mr. Spears said DOE-SR did not have any current plans to enter into discussions relative to future FFA commitments. Mr. Spears stated that as operations proceeded, when the time was right and if DOE-SR was facing challenges, as with tanks 12 and 16, DOE-SR would enter into those discussions in good faith with the regulators. CAB member Hoel asked Mr. Spears if the current system plan indicated DOE-SR would be removing waste from the tanks and operating DWPF well beyond 2024. Mr. Spears replied that was correct; however, it was 2028 versus 2024. CAB member Hoel said that was not consistent with the milestone within the Site Treatment Plan (STP) for DWPF operations and removal of the waste from those tanks. CAB member Hoel again shared his opinion that DOE-SR was clearly in jeopardy to meet the STP date. CAB member Hoel asked if there was any discussion on the STP date. Mr. Spears said there was no current discussion about the date and explained there was no real milestone in the STP. Mr. Spears corrected CAB member Hoel saying it was 2028 versus 2024, which meant DOE-SR was 13 years away from that timeframe anticipated in the STP. Mr. Spears stated that a lot can change in 13 years and at some point, DOE-SR may need to reset the schedule, but he said DOE-SR was not there yet. CAB member Hoel addressed the mercury issue Mr. Spears discussed in his agency update. CAB member Hoel asked when the elevated mercury levels were originally detected. Mr. Spears referred to Mr. Jim Folk, DOE-SR, to provide a response. Mr. Folk said the first indication of mercury levels approaching limits were based off samples collected in October; however, Mr. Folk explained it took approximately 60 to 90 days to receive sampling results, so it was around December and January. Mr. Folk stated mercury had been there for a long time and had also been part of processing through H-Canyon; however, he said as cleanup and tank closure begins, factors such as "concentration" and speciation" could occur. Mr. Folk explained DOE-SR and SRR were familiar with the elemental mercury that had been removed from the liquid waste system in the past, but he stated more "organic forms" of mercury was being identified, which was what DOE-SR and SRR were researching. Mr. Folk explained the mercury situation was currently a research project. He said in order for DOE-SR and SRR to determine if the "organic form" of mercury could be changed, samples of all the different areas of the tank farm needed to be collected and analyzed to determine where the mercury concentration was occurring and what factors could be generating the "organic form" of mercury. Mr. Folk referred to worker protection stating DOE-SR and SRR had already taken precautionary measures by changing the type of gloves required for workers who handle that material. Mr. Folk said there had been no mercury exposure to any workers and he repeated that the mercury situation was being addressed in "step-by-step fashion." Mr. Folk said some operations have been held back until DOE-SR fully understands any impacts; however, he was hopeful as research concluded that operations would fully resume. CAB member Hoel said he looked forward to hearing updated information within the mercury presentation scheduled for the June WM committee meeting. He said he was interested in when the increased mercury levels were detected because that information could have been interesting to the CAB for inclusion in the 2015 Work Plan. CAB member Hoel asked why the mercury situation was not suggested as a Work Plan topic if DOE-SR knew about the issue in December and January.

Mr. Kyle Bryant, Environmental Protection Agency (EPA)

Mr. Pope was absent for the Full Board meeting; however, in Mr. Pope's absence, Mr. Kyle Bryant, EPA, briefly spoke for EPA. Mr. Bryant mentioned Mr. Pope did not provide any specific information for the EPA agency update; however, Mr. Bryant announced on August 4-6, 2015, EPA was hosting a National Community Involvement Training Conference in Atlanta, GA. He said there was no registration fee, but it was open for everyone interested in community engagement. Mr. Bryant said community engagement professionals from all over the United States would be coming to the conference. He stated he would be participating in the Southern Exposure exercise on July 19-23, 2015, in Florence, SC. He explained the exercise was a radiological incident training drill for responding to a radiological hazard at a private nuclear facility.

CAB Vice Chair Nina Spinelli asked Mr. Bryant to forward the website link for the Community Involvement Conference to the CAB Support Team when the website went live later in May. Mr. Bryant said he would do that.

Ms. Susan Fulmer, South Carolina Department of Health and Environmental Control (SCDHEC)

Ms. Fulmer thanked DOE and EPA for their efforts in the dispute resolution process. She said the Senior Executive Committee met at the end of April and reached agreement of extension for the closure of tank 12. She stated DOE agreed to complete their field activities in preparation for grouting of tank 12 by September 30, 2015, which she said was the date Mr. Spears mentioned was the original milestone date, so she said September 30, 2015, would be the date field activities were completed and then operational closure of tank 12 would be completed by May 31, 2016. Ms. Fulmer noted that DOE also agreed to pursue

commercial sources of treatment for salt waste in an effort to accelerate and expedite tank closure through the issuance of an Expression of Interest by July 31, 2015. Ms. Fulmer said SCDHEC appreciated DOE's efforts to pursue those sources and looked forward to hearing the results on October 15, 2015, and during the quarterly liquid waste meeting. Ms. Fulmer said the tank 16 closure module, which was completed early and included a public comment period, was approved. She explained that due to the efforts of all SCDHEC, DOE, and EPA, grouting for tank 16 was moved up to June 4, 2015.

CAB member Hoel asked how SCDHEC felt about the elevated mercury detected in the liquid waste system. Ms. Fulmer said SCDHEC met with DOE to discuss the mercury issue. She noted SCDHEC was interested to see what further research would conclude since there could be several reasons for the elevated mercury. Ms. Fulmer mentioned SCDHEC was watching the development and looking forward to an update soon. CAB member Hoel asked if SCDHEC was concerned if the mercury issue involved any permit or compliance standards. Ms. Fulmer said SCDHEC was obviously concerned; however, all samples collected so far were below permit requirements.

CAB Vice Chair Spinelli asked if the public could attend the October 15, 2015, meeting. Ms. Fulmer said it was a closed meeting.

Mr. Sean Hayes, Georgia Department of Natural Resources (GADNR)

Mr. Hayes said he was in the Air Branch in the Environmental Protection Division and Mr. Keith Bentley, GADNR, was the Air Branch Chief; however, Mr. Bentley was moving to the Directors Office. He said Ms. Karen Hayes, would be taking over the Air Branch. He said he was unaware if this would change the program. Mr. Hayes said GADNR would be involved in drills at Plant Hatch, Plant Vogtle, and Plant Farley this year, as well as medical support drills for those plants.

Public Comments

Mr. Tom Clements, SRS Watch, thanked the CAB for their hard work and interest related to SRS cleanup. Mr. Clements mentioned a few weeks prior to the CAB meeting, DOE released a report by the Aerospace Corporation about the cost of the MOX Program and dispositioning plutonium via blending it down and taking it to WIPP. He said the cost of the MOX Program had skyrocketed. He said the report showed the annual funding for the MOX Program was 345 million dollars a year; however, he said the MOX Program was not viable. He stated NNSA needed a few million dollars more in order to complete construction of the MOX plant, so if the 345 million dollars emerged from Congress this year, he commented the MOX Program would be on track for a slow shutdown. Mr. Clements encouraged the CAB to be aware of the MOX Program because EM could end up with a lot of that material if the MOX Program was terminated. Mr. Clements moved on by encouraging the CAB to look out for a second DOE report being released in September to discuss various options besides blend down and MOX. Mr. Clements commented that South Carolina (SC) Governor, Nikki Haley, recently announced she was against interim commercial spent fuel storage at SRS. Mr. Clements mentioned the CAB Position Statement, adopted in July 2013, was also against interim commercial SNF at SRS. He said the CAB renewed the Position Statement in July 2014 and he encouraged the CAB to renew the Position Statement in July 2015. Mr. Clements said there was also a proposal by DOE to bring commercial spent fuel from Germany, in the form of graphite balls, to SRS. Mr. Clements said he was hearing through certain people that the Economic Minister for the state of Northrhine-Westphlia, which was where the spent fuel was stored, believed the United States' option was off the table for bringing the material to SRS. Mr. Clements said the Germans did not have a long-term spent fuel disposal plan similar to the United States. Mr. Clements stated DOE had not prepared a legal assessment and stated it was illegal under German law to export commercial SNF. Mr. Clements said he hand-delivered a letter to incoming SRS Manager, Jack Craig, and Acting Assistant Deputy Secretary for Environmental Management, Mark Whitney, asking the proposal to import this commercial spent fuel be terminated for various reasons. Mr. Clements also referenced a Freedom of Information Act (FOIA) response he received stating that DOE did not have a legal assessment if it were legal to import this material. He provided copies of handouts he discussed during his public comment, which will be attached to this document; however, the online links are below.

- 1. Article in Aiken Standard of May 13, 2015 "Haley: South Carolina against storing spent fuel" <u>http://www.aikenstandard.com/article/20150513/AIK0101/150519783/1002/AIK01/haley-south-carolina-against-storing-spent-fuel</u>
- SRS Watch news release of May 14, 2015 on German spent fuel issue: "DOE Affirms it has Not Conducted any Legal Analysis Concerning Import of German Commercial Spent Fuel to the Savannah River Site - SRS Watch Appeals to Office of Environmental Management to Halt German Deal as Date of Release of "Draft Environmental Assessment" Faces Chronic Delays" <u>http://www.srswatch.org/uploads/2/7/5/8/27584045/srs watch news on foia no doe legal analysis on german sp</u>

http://www.srswatch.org/uploads/2/7/5/8/27584045/srs watch news on foia no doe legal analysis on german sp ent fule dumping may 14 2015.pdf

3. Letter hand delivered from SRS Watch on April 21, 2015 to Jack Craig, new SRS site manager, and Mark Whitney, acting assistant secretary for environmental management, requesting that consideration of the import of commercial spent fuel from Germany be halted. As of June 1, 2015 there has been no response. <u>http://www.srswatch.org/uploads/2/7/5/8/27584045/srs watch letter to doe withdrawl german plan april 21 2015</u> <u>.pdf</u> 4. Freedom of Information Act (FOIA) response of May 7, 2015 from SRS to SRS Watch, confirming that no legal analysis had been prepared on the import of German commercial spent fuel to SRS. http://www.srswatch.org/uploads/2/7/5/8/27584045/foia letter no doe legal analysis may 7 2015.pdf

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

CAB member Powell listed the NM Committee members and briefly reviewed his presentation from the day before. He then welcomed Ms. Maxcine Maxted, DOE-SR, to begin her presentation.

PRESENTATION: Nuclear Materials Management Plan – Maxcine Maxted, DOE-SR

Ms. Maxted stated the purpose of her presentation was to complete a 2015 NM Work Plan topic by providing an overview of the NM Management Plan. She showed the CAB's Waste Flow Path highlighting facilities within the system plan before stating the presentation would provide DOE-SR assumptions and approved missions. She discussed the NM facilities beginning with "operational facilities." She explained the NM "operational facilities" were H-Canyon, HB-Line, K-Area, and L-Area, while "supporting facilities" were F and H Area analytical laboratories, SRNL, the Liquid Waste Program, and TRU waste activities in E-Area. Ms. Maxted said building 235-F was a "deactivated/inactive facility" addressed in the system plan; however, she explained that F-Canyon, FB-Line, the Receiving Basin for Offsite Fuels (FBOF), and C-Area were "deactivated/inactive facilities" not addressed in the system plan.

CAB member Hoel asked why "deactivated/inactive facilities" such as F-Canyon, FB-Line, RBOF, and C-Area were not included within the system plan. Ms. Maxted explained those facilities were recognized as being NM facilities; however, no active work was being conducted within those facilities; only surveillance and maintenance activities. Ms. Maxted said the system plan focused on missions for active facilities. CAB member Hoel said he did not understand why building 235-F, which was included in the system plan, but the other facilities were not. Ms. Maxted said there were active activities occurring at building 235-F regarding the removal of material; however, the other "deactivated/inactive facilities" were undergoing maintenance inspections and not active removal activities. CAB member Hoel asked if there were future decommissioning plans for F-Canyon, FB-Line, RBOF, and C-Area. Ms. Maxted said there were decommissioning plans described within the Lifecycle Baseline.

CAB member Dawn Gillas asked Ms. Maxted if there were any plans for Heavywater at SRS. Ms. Maxted said since Heavywater was a commodity, DOE-SR continued storing the leftover Heavywater until a useful source was identified.

Beginning with L-Area, Ms. Maxted discussed the missions for NM storage and disposition facilities. She stated L-Area safely received and stored SNF awaiting disposition, while K-Area safely received and stored enriched uranium and plutonium materials awaiting disposition. She said H-Area safely dispositioned uranium before she discussed general assumptions for the NM Management Plan. Ms. Maxted said DOE-SR's biggest assumption was safety since it was the top priority at SRS. She explained that DOE-SR supported safe and secure operations of NM facilities to disposition uranium and plutonium. Ms. Maxted mentioned the second assumption was to meet DOE-EM and NNSA nonproliferation missions. She said the last assumption was to support efficient operations and minimize waste generation. Beginning with H-Canyon assumptions, Ms. Maxted said she planned to discuss assumptions for each of the active facilities. She mentioned in August 2014 H-Canyon completed dissolution of the Sodium Reactor Experiment (SRE) fuel for vitrification via the DWPF. She said H-Canyon was dissolving SNF to recover uranium and blend the uranium down to low enriched uranium for Tennessee Valley Authority. Ms. Maxted said H-Canyon would process sufficient SNF to allow L-Area receipts through 2035. She mentioned H-Canyon was supporting HB-Line with the dissolution of plutonium for NNSA; however, the dissolver being used for plutonium dissolution would begin dissolving SNF in 2018. She discussed HB-Line assumptions stating HB-Line began plutonium oxide dissolution in July 2014 and would produce oxide through 2019 to support potential MOX feed for NNSA. Ms. Maxted addressed K-Area assumptions stating K-Area would store the plutonium oxide produced by HB-Line. She stated K-Area would continue safely storing receipts and shipments until approximately 2039, which was based on DOE-SR having one glovebox line for disposition of non-MOXable plutonium. Ms. Maxted said destructive examinations of plutonium oxide containers would continue through 2026 to support continued safe storage.

CAB member Hoel asked how many tons of plutonium was stored in K-Area. Ms. Maxted said she did not know the number. Mr. Pat McGuire, DOE-SR, said due to classification reasons he could not provide the exact number; however, Mr. McGuire said there were roughly 13 metric tons of plutonium that would be stored in K-Area.

Ms. Maxted continued the presentation by discussing L-Area assumptions stating SNF processing in H-Canyon would eliminate the need to install new storage racks in L-Area. Ms. Maxted stated per a Record of Decision (ROD), no new foreign research reactor (FRR) receipts would come back to the United States after May 12, 2019. She discussed domestic research reactor (DRR) fuel stating L-Area would support DRR fuel receipts through 2035.

CAB member Hoel asked what the definition was for "research reactor." He explained he wanted to know the difference between research reactor and commercial reactor since it could potentially help him understand why Mr. Tom Clements was saying the German fuel was commercial reactor fuel. Ms. Maxted said there was a definition for "research reactor;" however, she reminded CAB member Hoel it was important to understand the country where the fuel was located since each country has different laws. Ms. Maxted explained Germany would have to make their decision on what their fuel was.

Ms. Maxted highlighted "supporting facilities" stating SRNL and the F and H Area laboratories would continue to support NM facilities with flowsheet development and analytical results, respectively, at the level necessary. She also discussed site infrastructure stating DOE-SR would continue to support both infrastructure and safeguards and security capabilities. Ms. Maxted addressed "deactivated facilities" stating workers were trying to reduce and/or immobilize the amount of residual radiological material in building 235-F; however, a Deactivation Project Plan was approved in 2013. Ms. Maxted summarized the presentation stating safety continued to be the main priority at SRS and operations occur in an environmentally sound manner. She said some facilities at SRS, such as H-Canyon, were one-of-a-kind national assets and she explained nuclear materials were safely stabilized and dispositioned in order to allow for de-inventory of DOE-EM facilities and to meet nonproliferation goals.

Voting on Draft Recommendation

"Funding Increases for Processing Materials at SRS"

CAB member Gillas briefly read each item of the draft recommendation before CAB Chair Simon called for a motion to accept the recommendation. The CAB adopted the draft recommendation with 15 votes of approval, no opposition, and no abstentions. A copy of this recommendation has been attached to this document.

Administrative & Outreach (A&O) Committee Overview – Louis Walters, A&O Committee Member

CAB member Walters reviewed the presentation from the previous day. He encouraged CAB members to provide suggestions to the CAB Support Team for ideas that could be incorporated in the Board Beat Newsletter. CAB member Walters said copies of the spring 2015 copy of the Board Beat Newsletter would be available in June.

Public Comments

There were no public comments.

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

CAB member Barnes reviewed the presentation from the previous day before providing a recommendation status update. He explained how the previous day he closed all FD&SR recommendations except recommendation 329. He said he planned to discuss recommendation 329 at the next upcoming FD&SR Committee meeting, which he said was scheduled for June 9, 2015, at the New Ellenton Community Center in New Ellenton, SC. CAB member Barnes then welcomed Mr. Mike Griffith, Savannah River Nuclear Solutions (SRNS) to begin his presentation.

PRESENTATION: <u>State and Stakeholder Notification of Savannah River Site Environmental Releases</u> – Mike Griffith, SRNS

Mr. Griffith stated the purpose of his presentation was to fulfill a 2015 FD&SR Work Plan topic by providing the CAB and public with information regarding notification processes in the event of an environmental release from SRS. He addressed concerns of public and stakeholders stating Beaufort Jasper Water and Sewer Authority (BJWSA) and the City of Savannah must provide their customers with confidence that any water quality impacts from SRS operations were known and managed properly, possible contaminant information was available and provided in a timely manner, and water from the Savannah River was safe to use. Mr. Griffith discussed SRS's Environmental Monitoring Program stating environmental sampling had been performed at SRS for over 60 years. He said the Environmental Monitoring Program assessed impacts to the public and environment from SRS operations, monitored facility discharges, conducted extensive monitoring onsite and offsite, and analyzed collected samples like air, water, groundwater, soil, fish, and vegetation. He stated the three portions of the Environmental Monitoring Program were "effluent monitoring," "environmental surveillance," and "dose assessments." He said "effluent monitoring" was monitoring conducted on airborne effluents and liquid effluents from SRS facilities. Mr. Griffith explained "environmental surveillance" was the collection of air, water, soil, biota, and other media from the surrounding area of SRS. He explained the ambient environment included potential drinking water and food sources located around SRS. He said all the effluent monitoring and environmental surveillance data would be analyzed and evaluated at SRNL to determine the dose to the public. He stated the five sampling locations along the Savannah River serving as environmental surveillance points for the SRS Environmental Monitoring Program included: River Mile (RM) 160, RM 150.4, RM 150, RM 141.5, and RM 118.8. He showed pictures of sampling locations at RM 160 and RM 118. He said the sampling location at RM 160 was above SRS while the sampling location at RM 118 was below SRS. He said weekly samples were collected by SRS workers at the five locations; however, he noted that SCDHEC also had an Environmental Surveillance and Oversight Program (ESOP) that periodically collected samples along the river. Mr. Griffith discussed 2014 sample results from the Savannah River stating tritium concentration levels were well below the EPA standard of 20,000 picocuries per liter (pCi/L). He referenced the offsite drinking water surveillance stating samples were collected at offsite water treatment plants upriver at North Augusta, SC and downriver at BJWSA. He said the offsite drinking water surveillance program was based on DOE guidance, EPA drinking water standards, and the SRS critical pathway analysis. Mr. Griffith showed a chart titled "Average Drinking Water 2014 Tritium Concentration (picocuries per liter)" and showed how the North Augusta, RM 118.8, and BJWSA were well below the EPA standard. He then

addressed routine non-emergency notifications and reports that were provided to BJWSA, City of Savannah Industrial and Domestic (COSI&D), City of North Augusta, SC, SCDHEC, GDNR, and Southern Company. He said SRS provided weekly RM 118.8 tritium concentration results, annual radiological analysis report for offsite drinking water systems utilizing Savannah River water, and the annual site Environmental Report was sent to stakeholders. He stated notifications of planned activities that would result in radionuclide concentration increases within the river were provided prior to SRS beginning any discharges. He explained notifications of unplanned releases that did not trigger any emergency response action levels were sent as soon as possible; however, he explained whenever tritium concentrations exceeded the 5,000 picocuries per liter "warning trigger" in the Savannah River notifications were sent within 96 hours to downstream users. He discussed other notifications such as emergency notifications which he said were considered to be events that fell within the DOE Order emergency categorization/classification systems such as "health and safety," "environment," "hazardous/biological agents or toxins," "security and safeguards," and "offsite transportation events." He explained offsite notifications had to be sent within 15 minutes of declaration for events involving hazardous material releases; however, he said notifications could be sent within 30 minutes of declaration for all other events. Mr. Griffith discussed regulatory notifications that were required by law under the Code of Federal Regulations for events with hazardous material releases that require reportable quantities. Lastly, he discussed courtesy notifications that were sent for events that did not fall within the DOE emergency classification system but had potential for significant public or media interest. Mr. Griffith explained since 1991 releases from SRS have not resulted in any major impact to local or downstream stakeholders. He said no EPA drinking water maximum contaminant levels have been exceeded at the BJWSA treatment facilities due to SRS operations. Mr. Griffith mentioned in 2014, SRS only contributed 29 percent of the tritium in the Savannah River and SRS discharges to the Savannah River have never resulted in exceeding the 5,000 picocuries per liter tritium notification trigger.

CAB member Bill Rhoten asked if SRS ever exceeded the 5,000 picocuries per liter tritium notification trigger including the 150.4 site where the average last year was over approximately 1,100 picocuries per liter. Mr. Griffith said SRS had never exceeded the 5,000 picocuries per liter notification trigger limit at RM 118, which was what the criteria was based on. CAB member Rhoten asked if the limit had been reached at other RM locations. Mr. Griffith said the limit had not been exceeded at those particular monitoring sites along the Savannah River; however, he mentioned within the Environmental Report there were some internal streams at SRS that showed an exceedance.

CAB Vice Chair Spinelli asked how it was determined SRS's tritium contribution amount was 29 percent. Mr. Griffith said an annual Tritium Inventory Report was developed for the amount of tritium being contributed from SRS facilities, groundwater migration, and amount of tritium in streams in order to determine how much tritium was coming from SRS. Mr. Griffith stated based on the concentrations and calculations, with flows in the river, researchers were able to calculate how much tritium was in the Savannah River. He said we know how much tritium came from SRS and how much tritium came from the Savannah River, but the difference in that would be another contributor, which he said in this case was Plant Vogtle.

CAB member John McMichael asked how many years data had been collected at SRS. Mr. Griffith said there was data available that was collected in the 1950's. CAB member McMichael said even if sample results were below regulatory standards, were current and past results analyzed to determine if any monitoring stations had increasing trends from year-to-year. Mr. Griffith said the current years' data was analyzed along with data from 10 to 15 years ago for each of the individual sampling locations. Mr. Griffith said researchers focused on the five year trend, which was available in the annual Environmental Report.

CAB member Hoel referenced slide five of Mr. Griffith's presentation asking if SRS collected samples from every county labeled on the map. Mr. Griffith said that was correct and he explained the Environmental Monitoring Program for those counties could focus on collecting samples such as milk samples, air samples at air monitoring stations or collecting vegetation samples. CAB member Hoel asked if the entities listed on slide 12 also conducted monitoring. Mr. Griffith said he was unsure about GADNR; however, all the other entities conducted monitoring efforts. Mr. Sean Hayes, GADNR, stated GADNR collected river water samples only at RM 118. CAB member Hoel asked Mr. Hayes if GADNR also collected soil and food samples. Mr. Hayes explained that around Plant Vogtle, GADNR had locations where air and rain were sampled; however, he said GADNR did not collect food or vegetation samples. CAB member Hoel asked if all the entities listed on slide 12 shared monitoring data with SRS. Mr. Griffith said those entities did share data with SRS. CAB member Hoel asked Mr. Hayes if GADNR shared their data with SRS. Mr. Hayes stated GADNR had not developed a report in several years; however, he was unsure if the report was provided to DOE-SR. He said all the data collected was compiled in Atlanta, GA and Mr. Hayes was unsure how the data was shared. CAB member Hoel asked if someone on the CAB could also receive the non-emergency notifications. Mr. Griffith said he could discuss that with DOE-SR and determine who could be added to the distribution list. CAB member Hoel referenced slide 14 and asked Mr. Griffith if tritium concentrations ever exceeded the 3,000 picocuries per liter administrative limit. Mr. Griffith said he would have to research an answer. CAB member Hoel asked Ms. Kim Brinkley, SCDHEC, how data collected by SCDHEC compared to SRS sampling data. Ms. Brinkley said SCDHEC collected the same media as SRS and the results were very similar when compared to data collected by SRS. CAB member Hoel also asked Mr. Hayes if GADNR's data was also consistent with SRS data. Mr. Hayes said the data was consistent with SRS.

CAB member Streeter asked if the entities listed on slide 12 that collect samples and perform monitoring had the same type of laboratories capabilities as the SRS laboratories. Mr. Griffith explained laboratories used for environmental monitoring purposes went through various certification processes to demonstrate the ability to accurately identify and analyze different contaminants. CAB member Streeter asked if GA was receiving information about weekly samples collected at SRS river sampling locations. Mr. Griffith said the weekly report was sent to GADNR, which Mr. Hayes commented GADNR received.

CAB member Gil Allensworth asked Mr. Griffith what the tritium levels would be in a river that did not have facilities like SRS and Plant Vogtle nearby. Mr. Griffith said he would have to research an answer.

PRESENTATION: Savannah River Release Response – Tricia Kilgore, City of Savannah

Ms. Kilgore stated she presented to the CAB a year ago in Beaufort, SC since she worked for BJWSA; however, she commented since then she had changed jobs and now worked on the other side of the river for the City of Savannah. Ms. Kilgore commented she was sad to see CAB member Earl Sheppard was not in attendance. She said, "I worked with Earl at BJWSA and I miss doing that. I enjoyed working with Earl." Ms. Kilgore said the purpose of her presentation was to satisfy a 2015 FD&SR Work Plan topic by discussing the City of Savannah's release response systems. She stated the two parts of Savannah's water system were the "groundwater system" and the "surface water system." She said the water being served at the meeting was from the "groundwater system," which she explained was from one of the 50 wells in Savannah's main groundwater system. Ms. Kilgore said the "surface water system" involved the Industrial and Domestic Water Treatment Plant (I&D), which was constructed to provide water to the paper mills in the 1940's. She said the I&D served approximately 40,000 people and had a capacity of 60 million gallons per day. Ms. Kilgore mentioned Georgia Environmental Protection Division (EPD) was reducing City of Savannah groundwater withdrawal permit rates. She said as the amount of groundwater pumping was reduced, the "surface water system" and I&D would have an increasing role in the future. She said the I&D was located in Port Wentworth before providing a diagram of the I&D water system. She said the intake location was at Abercorn Creek, which was a tributary of the Savannah River and she pointed out the two 8-mile pipelines that went from Abercorn Creek to the I&D. Ms. Kilgore mentioned the City of Savannah currently did not have any "off stream storage;" however, she said the Army Corp of Engineers was constructing a 100 million gallon reservoir for the I&D as part of the Savannah Harbor deepening. She said the City of Savannah could be adversely affected by the deepening and the reservoir would provide a buffer for potential tidal problems. She said water from the I&D went to various customers, which included: Weyerhauser, IP, Effingham County, City of Savannah, Savannah Sugar, BASF, City of Port Wentworth, and City of Pooler. She provided a map, pointing out downtown Savannah, the I&D's location, and the intake at Abercorn Creek. She showed pictures of the Savannah River at Bear Creek, which flowed down into Abercorn Creek. She explained the City of Savannah was located far enough downstream that the intake location was "tidally influenced," meaning the raw water quality at the I&D changed at least four times a day. She said this change in water quality required operators to be extremely vigilant and conduct hourly process controls. Ms. Kilgore discussed tritium monitoring stating the City of Savannah daily collected water samples from Burton's Ferry Highway 301 bridge, which allowed a three-day notice of a potential impact. She noted that daily raw water in-house composite sampling had been done since the 1992 release event. Ms. Kilgore said the City of Savannah used the weekly release information emails from SRS to determine treatment options. She restated there was no off stream storage to bypass a release event. She discussed customer notifications in the event of a release. She explained a direct notification would be sent to industrial and municipal customers. She said the City of Savannah allows wholesale customers to make the decision about the notification and advisory to their retail customers.

CAB member Hoel asked Ms. Kilgore if the City of Savannah shared its monitoring data with SRS. Ms. Kilgore said monitoring data had not been shared with SRS; however, the data was comparable to SRS's data. CAB member Hoel asked if DOE paid for the tritium monitoring conducted by the City of Savannah through a grant. Ms. Kilgore said there was a grant funding for some of the tritium monitoring. CAB member Hoel asked if GA EPD was reducing groundwater withdrawal rates due to salt water intrusion. Ms. Kilgore replied, "Yes."

CAB member Powell asked if the City of Savannah would ever stop selling water due to tritium contamination. Ms. Kilgore explained that not all of the water sold was consumed by people. She provided an example stating a majority of the water sold to Effingham County was used to operate the power plant. She said the City of Savannah would probably not stop selling the water just because of tritium.

CAB member Gillas asked if the 1992 event ever exceeded the tritium drinking water standards. Ms. Kilgore said she did not know how high the tritium got; however, she explained the 20,000 picocuries limit for tritium was based on a long-term release, so even if the tritium did exceed the limit for a short period of time, it did not necessarily mean there was a health risk since the limit was based on chronic exposure not short-term.

CAB Vice Chair Spinelli asked if the City of Savannah was part of the lawsuit with Atlanta and Alabama over water rights. Ms. Kilgore said the City of Savannah was not involved in that lawsuit since it involved another river.

Waste Management (WM) Committee Overview - Louis Walters, WM Committee Member

CAB member Walters also reviewed the WM presentation from the previous day. CAB member Walters said the next WM Committee meeting was scheduled for June 2, 2015, at the New Ellenton Community Center in New Ellenton, SC. He then introduced Mr. Bill Barnes, Savannah River Remediation (SRR) to begin his presentation.

PRESENTATION: Defense Waste Processing Facility Update - Bill Barnes, SRR

Mr. Barnes said the purpose of his presentation was to fulfill a 2015 WM Work Plan topic by providing an update on the DWPF and status of the interim canister storage double-stack project. He provided a diagram of the Liquid Waste Program, pointing out the location of DWPF and Glass Waste Storage Buildings (GWSB). He also showed a "gear chart" stating the Liquid Waste

Program involved a highly integrated system of many facilities. He discussed DWPF production rates stating DWPF was on schedule to produce the desired number of canisters this year. Mr. Barnes said as of March 12, 2015, the amount of canisters produced was 3,965 canisters, which was approximately 46 percent complete f or total production. He also stated the canister production rate for FY 2015 was 156 canisters and FY 2016 was 136 canisters, with a four month melter outage. He explained SRR was pleased with the melter performance and he explained the melter had a two-year design life. He said melter one operated for eight and a half years and processed 5.2 million pounds of glass. He said melter two was currently 12.1 years old and had processed 10.1 million pounds of glass. Mr. Barnes referenced canister storage and said there were two GWSB, but there would not be a third GWSB due to the large upfront cost and future deactivation and decontamination cost. He explained since there would not be a third GWSB, interim canister storage was required because canister space would run out in FY 2019. He said the double-stack project doubled the capacity for canisters in GWSB 1 from 2,254 to 4,508 canisters. He stated the doublestack project would extend canister production to approximately FY 2026; however, additional storage would eventually still be required. Mr. Barnes showed a drawing of the double-stack concept before he explained how the concept would allow two canisters to be stacked in one location. He stated the upper canister would be placed directly on top of the lower canister. Mr. Barnes said the shield plug above the canisters would be redesigned for equivalent radiological protection. He showed a picture of the how the crossbar would be removed and the redesigned plug be placed on top. He said the double-stack method was feasible because the GWSB was originally designed to hold very radioactively hot materials; however, the materials that were processed, placed in canisters, and stored in GWSB 1 had very low curies amounts and heat load. He explained that was why two canisters could be placed in one location and still stay below all the safety margins. He explained various Technical Evaluations were conducted, which he said included heat models, radioactivity models, and seismic/structural models; however, he noted the Technical Evaluations all had excellent reports and supported the double-stack project. He said everything that had been modeled and studied for the double-stack project looked completely safe. He explained double-stack was going to be pursued in order to bridge the canister storage gap and he mentioned the project would result in a cost-savings since a third GWSB would not need to be built.

CAB member Gillas stated she felt the neck of the lower canister would be a weak spot and she asked if that spot had been evaluated and passed Technical Evaluations. Mr. Barnes said the canisters had been tested for seismic activity and the location CAB member Gillas was referring to passed all the seismic regulations. CAB member Gillas asked if the testing was based on calculations or an actual experiment with two canisters. Mr. Barnes replied the testing was done by calculations. CAB member Gillas asked how the canisters would be placed relative to curie content. Mr. Barnes stated there were enough low curie canisters stored in GWSB 2 that could be moved to double-stack all locations in GWSB 1.

CAB member Mary Weber referred to slide seven and asked if the four month melter outage was a planned activity. CAB member Weber also asked if melter two was nearing the end of its useful life. Mr. Barnes said melter two was currently "six times beyond its design life;" however, in planning procedures SRR assumed a melter outage would need to occur in FY 2016. Mr. Barnes commented that if melter two failed tomorrow, melter three was already fabricated and in storage at SRS.

CAB member Hoel asked if the Technical Evaluations examined potential operational accidents such as if the shielded canister transport (SCT) accidentally dropped a canister on top of the lower canister. Mr. Barnes said those tests were not done for this project, but those tests were conducted during the original DWPF project. He said canisters were dropped from 30 meters in all possible scenarios so there was a lot of data on what happened to canister when they were dropped from those angles. Mr. Barnes explained those tests would apply to the double-stack conditions. CAB member Hoel asked what parts wore out on melters. Mr. Barnes explained within the liquid phase there were electrodes down in the molten to keep the liquid heated. He also said there were dome heaters in the vapor space. Mr. Barnes stated the dome heaters in the vapor space of melter 1 failed because there were requirements to keep the vapor space at certain temperatures. Mr. Barnes said it seemed to be electrical components, which keep melters hot, that caused melters to become worn out. CAB member Hoel asked how old melters were disposed. Mr. Barnes explained there were vaults onsite that were designed to hold field melters. Mr. Barnes said the field melters wert into the vault box and the box was placed underground in a vault. He said melter 1 was located in the equipment storage vault and currently the plan was to continue storing melters that way. Mr. Barnes said there was currently not a disposition path developed for the melter; however, he said he felt West Valley had developed a plan for where they would send melters since that facility had been decommissioned. CAB member Hoel asked what West Valley was going to do with its melters. Mr. Barnes stated he felt the melters would be sent to Nevada Test Site.

CAB member Hoel asked if the melters were originally supposed to be sent to Yucca Mountain. Mr. Stuart MacVean, SRR, stated the disposition path for the melters was in the end of the system plan and extended into the future. He explained the disposition path was far into the future so the short-lived nuclides could dissipate to lower the radioactivity of the melter. Mr. MacVean explained the melters were never intended to go to Yucca Mountain since Yucca Mountain was originally set up for canisters and spent fuel. CAB member Hoel asked if the melter was considered to be high level waste. Mr. MacVean referred to the melter at West Valley, stating a Waste Incidental had been done for the melter. Mr. MacVean said he imagined the same type of paperwork would probably have to be put in place at SRS to do the same type of thing.

Strategic & Legacy Management (S&LM) Committee Overview – James Streeter, Vice Chair

CAB member Streeter reviewed the presentation from the previous day before providing a recommendation status update. He stated recommendation 323 was open. He announced the next S&LM Committee meeting was scheduled for June 9, 2015, at the New Ellenton Community Center in New Ellenton, SC.

Public Comments

Ms. Marolyn Parson, public, thanked DOE-SR for approving the funds for the downstream meeting; however, she urged the CAB to work with DOE-SR to advertise meetings more in order to attract more members of the public. Ms. Parson also encouraged the CAB to invite people to meetings by using their personal contacts. Ms. Parson said she really appreciated the presentations given by Mr. Griffith and Ms. Kilgore.

Ms. Cee Cee Anderson, public, said she was disappointed the public was not participating as much as they need to be. Ms. Anderson mentioned she was alone at the meeting since the rest of the GAWAND team was in Washington, D.C., lobbying. Ms. Anderson stated she appreciated all the presentations; however, she said she was concerned how members of the public were notified about the condition of the drinking water. She explained she did not have any data from Atlanta, which was where she was from, about the water quality. She commented she felt there should be an equal amount of CAB meetings in GA and SC.

Mr. Gary Zimmerman, public, stated he owned a home in Bluffton, SC, and had been traveling to CAB meetings for the past 15 years. He said it seemed to be that waste was going to SRS all the time and he encouraged the CAB to request DOE-SR reduce and eventually eliminate the production of new waste, since that would be the only was to clean up SRS. He said H-Canyon and other SRS facilities were doing good work now; however, he wished when new opportunities developed DOE-SR would allow those facilities to finish the work and not begin new missions.

After no further public comments, CAB Chair Simon thanked everyone for participating and adjourned the meeting.

~Meeting adjourned

Recommendation 330 Funding Increases for Processing Materials at SRS

Discussion

Much of the receipts of foreign nuclear materials are controlled by legislation such as Atoms for Peace from the Eisenhower administration. This and other legislation controls definitions of materials which can be brought in from foreign countries, cost of receiving these materials, and associated protocols.

The funds that SRS receives for taking the foreign research reactor spent nuclear fuel was negotiated and managed by NNSA. However, NNSA does not incur costs associated with these fuels once they reach the SRS boundary. EM is then fully responsible for the costs to store these fuels as well as ultimate disposition. The funds that EM receives from these NNSA-negotiated rates do not come close to covering EM's liability for these fuels. Also, EM receives no funding to receive, store, and disposition foreign SNF from non-high-income countries.

Recommendations

The SRS Citizens Advisory Board recommends that the Department of Energy:

- 1. Work with appropriate agencies to increase the rates for any SNF and materials shipped to SRS to allow for cost recovery by EM.
- 2. Request NNSA to provide funding to EM for the processing and disposition of any SNF, especially for SNF from the other-than-high-income countries.
- 3. Apply resulting funding income to repair, replace and improve infrastructure at SRS, which store and process said nuclear materials.

Haley: South Carolina against storing spent fuel - Aiken Standard

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Haley: South Carolina against storing spent fuel



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Derrek Asberry (/apps/pbcs.dll /personalia?ID=22)

(mailto:dasberry@aikenstandard.com) 💆 @DerrekAsberry

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May 13 2015 12:01 am



http://www.aikenstandard.com/article/20150513/AIK0101/150519783



Gov. Nikki Haley's office said South Carolina will not join other states in voluntarily opening its doors to house the nation's spent nuclear fuel, stating that a recently announced federal search for interim storage sites "masks repeated failures to meet commitments."

Haley's comments come on the heels of President Barack Obama authorizing the Department of Energy to search for other material repositories for high-level radioactive nuclear-weapon-related waste and spent nuclear fuel rods from commercial electric generation.

The process began in March with an ongoing consent-based approach to find communities and

Haley: South Carolina against storing spent fuel - Aiken Standard

http://www.aikenstandard.com/article/20150513/AIK0101/150519783

STATES OF ANALS

states interested in housing spent fuel and radioactive waste.



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potentially reverse a decades-long plan to dispose of

them together at Yucca Mountain – a volcanic structure near the former Nevada Test Site about 100 miles from Las Vegas – where the nation intended to permanently store its nuclear waste. The facility has been heavily debated since 1994 when DOE began drilling a 5-mile tunnel through the mountain.

In 2010, Obama ordered work on Yucca to cease, leaving \$13 billion of work on the table. Then, in 2014, the Nuclear Regulatory Commission began releasing a series of reports that have concluded that Yucca is suitable for storage.

Still, Obama's announcement has shown that the federal government is looking beyond Yucca. So far, New Mexico and Texas expressed interest in temporarily housing the nation's spent nuclear fuel, including an endorsement from New Mexico Gov. Susana Martinez.

"There is a significant and growing national need for such an interim storage facility," Martinez wrote in letter to DOE Secretary Ernest Moniz. "The recent decision by your administration to adopt a consent-based approach for waste management should highlight areas such as southeastern New Mexico where there is broad support in the region for such an endeavor."

Though New Mexico and Texas are showing interest, Chaney Adams, a spokesperson for Haley, said the governor is committed to not bringing in more shipments of nuclear waste or fuel to the Palmetto State.

"Gov. Haley has been clear on this issue since taking office – South Carolina's taxpayers have paid [¬] for Yucca Mountain, and it should be completed and opened," Adams said. "South Carolina won't volunteer to hold any more nuclear materials as long as we cannot to dispose of those we currently have."

Locally, several groups already have gone on the record stating their opinions on the matter, particularly in regards to the Savannah River Site where both forms of nuclear materials are housed.

Chuck Munns, the chairman of Citizens for Nuclear Technology Awareness, said in March he is still in support of Yucca. If the project never materializes, however, Munns said SRS should at least be part of the selection process.

"In the end, we are a democracy, and if our system decides that Yucca is no longer politically possible, then we should quickly determine the new strategy and get at making it a reality," Munns said.

Tom Clements, the director of SRS Watch, opposed the notion and added that the SRS Citizens Advisory Board shot down in 2013 the thought of SRS opening its doors for more waste.

"The public doesn't want a spent-fuel storage site at SRS or anywhere else in the area," Clements said.

Derrek Asberry is the SRS beat reporter for the Aiken Standard and has been with the paper since June 2013. He is originally from Vidalia, Ga., and a graduate of Georgia Southern University. Follow him on Twitter @DerrekAsberry.

Comments

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Savannah River Site Watch

Savannah River Site Watch http://www.srswatch.org/ https://www.facebook.com/SavannahRiverSiteWatch For Immediate Release May 14, 2015

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DOE Affirms it has Not Conducted any Legal Analysis Concerning Import of German Commercial Spent Fuel to the Savannah River Site

SRS Watch Appeals to Office of Environmental Management to Halt German Deal as Date of Release of "Draft Environmental Assessment" Faces Chronic Delays

Columbia, SC – The U.S. Department of Energy has revealed that it has not prepared a legal analysis on the unprecedented proposal to import highly radioactive commercial spent nuclear fuel from Germany to the Savannah River Site (SRS) in South Carolina. Failure of DOE to assess the legality of what is believed to be the first commercial spent fuel import into the United States before pursuing the proposal is a significant oversight that may well lead to its demise, according to Savannah River Site Watch (SRS Watch).

The spent fuel in question involves 900,000 uranium-impregnated graphite balls from the long-closed AVR and THTR gas-cooled reactors, both of which were used to commercially generate electricity in a failed attempt to demonstrate the viability of gas-cooled reactors in Germany. The spent fuel, now stored in two locations in Germany, would be taken to SRS for reprocessing to remove uranium, if the deal were to go forward. The resultant high-level nuclear waste streams would be dumped into the aging SRS waste tanks, thus complicating and prolonging the challenge of emptying the SRS tanks, according to SRS Watch.

Information about the lack of preparation of a legal analysis came in the form of a May 7, 2015 response to a Freedom of Information Act (FOIA) request by SRS Watch. The FOIA request was filed by SRS Watch given that several German entities had determined that the export, especially for reprocessing, was illegal under German law. The response, signed by Lucy Knowles, SRS legal counsel, states that "the DOE-SRS Office of Chief counsel and Nuclear Materials Program Division conducted search for documents responsive to your FOIA request and found no responsive documents."

"In spite of analyses in Germany determining that the export is illegal under German law and European Union regulations, it comes as a surprise that DOE has been sloppy in its work and not even bothered to prepare its own legal analysis of the proposal," said Tom Clements, director of SRS Watch. "The deal may well be falling apart now that its run into the realities of German law. I would not be surprised to see the DOE and SRNS proposal involved in a legal complaint as the deal is clearly illegal under German law. I visited Germany last September to successfully alert the Germans that SRS is not a nuclear waste dump site and will return to Germany to continue to education campaign if DOE presses forward. Particularly given the cavalier attitude by DOE and SRNS in pursuit of the illegal deal, it would be a good use of time to appear in a German or European Union legal body to watch the deal be challenged."

A "draft environmental assessment" (EA) being prepared by DOE on the proposal was originally due to be released in December 2014 but has been delayed every month since then. SRS has failed to respond to an April 21 letter from a German Bundestag member to Ms. Maxcine Maxted, DOE-SR Used Nuclear Fuel Program Manager, and a May 4 email to the new SRS environmental officer (Mr. Steve Danker, NEPA Compliance Officer, <u>DOE-SRNEPA@srs.gov</u>) asking for the date of the release of the draft document. "DOE's failure to prepare its own legal analysis may well have given it cold feet in proceeding with an environmental analysis of a deal that is illegal under German law," according to Tom Clements of SRS Watch.

The DOE FOIA response implies that Savannah River Nuclear Solutions (SRNS), the site contractor pushing the deal with Germany, could have "legal records" but even if any such documents exist they would not have the legal standing of government documents related to the proposed import, which DOE has stated would take place through the old Charleston, SC naval station.

Development of the spent fuel reprocessing technique is being developed under a SRNS "work for others" agreement and DOE affirmed that it also did not prepare a legal analysis of that agreement in spite of clear indications from Germany that reprocessing of its spent fuel is also prohibited.

A legal analysis prepared by a lawyer for Greenpeace Germany, one of three such analyses, concluded that "the licensing of a disposition of spent nuclear fuel from the AVR stored in an interim storage facility in Juelich (Germany) to the U.S. DOE Savannah River Site would severely several German and European laws and therefore would clearly be illegal." BUND (German Friends of the earth) and the state of Northrhine-Westphlia also have their own analyses (in German).

Given the problems faced by the proposal, including lack of preparation of a "nuclear non-proliferation impact assessment" by DOE on the proliferation implication of the new reprocessing technique, SRS Watch requested that DOE terminate the proposal. In hand-delivered letters on April 21 to Mark Whitney, Acting Assistant Secretary for Environmental Management, and Jack Craig, incoming SRS site manager, SRS Watch requested that the officials take steps to formally terminate the proposal. There has been no response to the letter but formal termination of the deal will now save DOE legal and political headaches, according to SRS Watch.

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Notes:

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FOIA response letter to SRS Watch, May 7, 2015, affirming that no legal analysis has been prepared:

http://www.srswatch.org/uploads/2/7/5/8/27584045/foia letter no doe legal analysis may 7 2015. pdf SRS Watch letter to the Office of Environmental Management, April 21, 2015, requesting that the deal with Germany be terminated – there has been no response as of May 14, 2015

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http://www.srswatch.org/uploads/2/7/5/8/27584045/srs watch letter to doe withdrawl german pl an april 21 2015.pdf

Group letter requesting preparation of a "nuclear non-proliferation assessment" on the new reprocessing technique being developed by Savannah River National Lab, April 14, 2015 – there was been no response

http://www.srswatch.org/uploads/2/7/5/8/27584045/group letter for npia on reprocessing techniq ue for german spent fuel april 2015.pdf

Letter from German Bundestag member Sylvia Kotting-Uhl, April 21, 2015, asking for the date of release of the DOE's "draft environmental assessment" on the German deal – no response yet to that office

http://www.srswatch.org/uploads/2/7/5/8/27584045/letter to maxine maxted spent fuel elements export from avr germany april 2015.pdf

Greenpeace Germany legal analysis that export of German spent fuel to SRS is illegal, December 2014

http://www.srswatch.org/uploads/2/7/5/8/27584045/rechtsgutachten-juelich engl english brief.pdf

DOE's notice in the Federal Register on the preparation of the "draft environmental assessment," June 4, 2014; draft EA originally to be released in December 2014 and delayed every month since, no date known for release or termination of this document

https://www.federalregister.gov/articles/2014/06/04/2014-12933/environmental-assessment-for-theacceptance-and-disposition-of-used-nuclear-fuel-containing

Savannah River Nuclear Solutions "work for others" agreement with Germany to investigate reprocessing of the AVR spent fuel at SRS, December 2012:

http://www.srswatch.org/uploads/2/7/5/8/27584045/work for others agreement december 2012 d oc 6 redacted.pdf DOE-Germany "Statement of Intent" to examine SRS as a "disposition" site for the spent fuel stored at Juelich, March/April 2014

http://www.srswatch.org/uploads/2/7/5/8/27584045/statement of intent march april 2014.pdf

Presentation by DOE headquarters staffer to SC Governor's Nuclear Advisory Council, July 10, 2014, "Potential Acceptance & Disposition of German Pebble Bed HEU Environmental Assessment"

http://www.energy.sc.gov/files/gnac/DeLeonPres7-10-2014 0.pdf

Contact:

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Tom Clements SRS Watch tel. 803-834-3084 srswatch@gmail.com



April 21, 2015

Mr. Mark Whitney Acting Assistant Secretary for Environmental Management U.S. Department of Energy 1000 Independence Ave. SW Washington, SC 20585

Mr. Jack Craig SRS Manager Designate Savannah River Site P.O. Box A Aiken, SC 29802

Terminate Proposal to Import German Commercial Spent Fuel for Reprocessing at SRS

Dear Mr. Whitney & Mr. Craig,

I am writing to you to ask you to take steps to formally terminate pursuit of the import of German spent graphite fuel to the Savannah River Site for reprocessing, with resultant highlevel waste streams being dumped into the SRS waste tanks.

There are many reasons for terminating the proposal, including:

- the public near SRS does not want such high-level waste coming into the site with no exit strategy;
- the unprecedented import of the commercial spent fuel from Germany into the U.S. would set a bad precedent and indicate that that DOE may consider more such imports that might be taken to SRS for long-term storage;
- additional waste into the aging SRS waste tanks will complicate and delay clean-up of waste already at SRS, distract from that clean-up and increase costs;
- DOE has claimed to German entities that SRS would be a "disposal" site for the spent fuel but such is not the case of such high-level waste must, under U.S. law, go to a geologic repository;
- the two German reactors involved, the long-closed AVR and THTR gas-cooled reactors were commercial reactors connected to the electricity grid and various analyses show that it is illegal under German law to export such fuel, especially for reprocessing;
- legal action in Germany is likely to halt the export of the graphite spent fuel and could. end up involving DOE;



- despite ample time to prepare such a document, no nuclear "non-proliferation impact assessment" has been prepared either by the national Nuclear Security Administration (NNSA) or the Office of Environmental Management on the new reprocessing technique being developed by Savannah River National Lab (SRNL);
- the development of a new reprocessing technique by SRNL to manage the hard-toreprocess spent fuel may pose the largest proliferation concern with the proposal;
- the spent fuel in question poses little, if any, proliferation risk, and the plan until late
 2011 was to dispose of it in Germany; such disposal in Germany must be pursued; and
- lack of any other viable storage or disposal options in Germany, including no geologic repository for any commercial spent fuel, the AVR spent fuel can be safely stored at the Forschungzentrum Juelich facility, where it is currently located, until such time as a geologic repository is established in Germany.

Though it appears that the Germans have backed away from the export option, that is not official. Thus, given the reasons cited above, I request that you take steps to show DOE leadership and demonstrate to the public that SRS will not become a nuclear waste processing site for German highly radioactive spent fuel:

- 1. Formally halt the development by the Office of Environmental Management of a draft environmental assessment on the reprocessing and dumping of the AVR and THTR spent fuel at SRS;
- 2. Terminate any "work for others" agreements between German entities and SRNL concerning development of a new reprocessing technique for graphite spent fuel and formally terminate any consideration to import the German commercial spent fuel, and;
- 3. Offer help to Germany of the Office of Environmental Management in determining a path forward for intermediate storage and final disposal of the graphite spent fuel.

Thank you very much for considering the views expressed in this letter and for your efforts to clean up SRS and make sure that no materials come into the site without an exit strategy.

Sincerely,

Ton Clevert

Tom Clements Director, SRS Watch www.srswatch.org srswatch@gmail.com tel. 803-834-3084



Department of Energy Savannah River Operations Office P.O. Box A Aiken, South Carolina 29802

MAY 0 7 2015

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. Tom Clements SRS Watch 1112 Florence Street Columbia, SC 29201

Dear Mr. Clements:

SUBJECT: Freedom of Information Act (FOIA) Requests, Savannah River Operations Office SRO-2015-01163-F

This is our final response to your April 4, 2015 FOIA request. You asked for documents relating to the two German commercial reactors.

- Any legal analyses prepared by any DOE Department, including the Office of General Counsel at the Savannah River Site concerning the legality of Germany's export of graphite spent fuel to the U.S. for reprocessing and storage. Such analyses would likely include a review of both German and European Union laws and regulations concerning export to a non-EU country of spent fuel for reprocessing and storage;
- 2. Any legal analyses prepared by any DOE department, including the Office of General Counsel at the Savannah River Site of any "Work for Other" agreements entered into between DOE and any Germany entity concerning research into the reprocessing at the Savannah River Site and export to the Savannah River Site of German graphite spent fuel; and
- 3. Any attachments or supporting documents to any legal analyses requested above

The DOE-SR Office of Chief Counsel and Nuclear Materials Program Division conducted a search for documents responsive to your FOIA rquest and found no responsive documents.

The FOIA requires that a search be reasonable, not exhaustive. "[T]he standard of reasonableness which we apply to agency search procedures does not require absolute exhaustion of files; instead, it requires a search reasonably calculated to uncover the sought materials." <u>See Miller v. Department of State</u>, 779 F.2d 1378, 1384-85 (8th Cir. 1985); <u>accord, Weisberg v.</u> <u>Department of Justice</u>, 745 F.2d 1476, 1485 (D.C. Cir. 1984). Furthermore, the FOIA regulation states that an agency is not required to <u>create</u> records in order to respond to requests or questions.

Mr. Tom Clements

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The U.S. Department of Energy Savannah River Operations Office (DOE-SR) neither owns nor possesses the documents responsive to your request. Specifically, DOE's contract with SRNS. DE-AC09-08SR22470, Clause I.39(b)(3) and I.39(b)(4), provide:

The following records are considered the property of the Contractor and are not Government documents:

"records relating to any procurement action by the contractor, except for records that under 48 CFR 970.5232-3 (Accounts, Records, and Inspection) are described as the property of the Government:" and

"legal records, including legal opinions, litigation files, and documents covered by the attorney-client and attorney work product privilege."

The records you have requested are procurement and legal related records of SRNS and do not fall under any of the exceptions listed above.

Documents are agency records for FOIA purposes if they (1) were created or obtained by an agency and (2) are under agency control at the time of the FOIA request. See United States Dep't of Justice v. Tax Analysts, 492 U.S. at 145. The documents responsive to your request are not in our possession or control.

If you wish to appeal this decision, a written appeal must be submitted within 30 calendar days after receipt of this letter. Written appeals must be submitted to the Director. Office of Hearings and Appeals, Department of Energy, 1000 Independence Avenue, SW, L'Enfant Plaza, Washington, DC, 20585, pursuant to 10 CFR 1004.8, which sets forth the required elements of such appeals. Thereafter, judicial review will be available in the district in which the requester resides or has a principal place of business, or in the district in which the records are situated, or in the District of Columbia.

As Chief Counsel, DOE-SR, I am the authorizing official for documents responsive to your request. If you have any questions, please contact Ms. Pauline Conner at (803) 952-8134.

Sincerely.

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Lucy M. Knowles Authorizing Official

Recommendation 330 Funding Increases for Processing Materials at SRS

Discussion

Much of the receipts of foreign nuclear materials are controlled by legislation such as Atoms for Peace from the Eisenhower administration. This and other legislation controls definitions of materials which can be brought in from foreign countries, cost of receiving these materials, and associated protocols.

The funds that SRS receives for taking the foreign research reactor spent nuclear fuel was negotiated and managed by NNSA. However, NNSA does not incur costs associated with these fuels once they reach the SRS boundary. EM is then fully responsible for the costs to store these fuels as well as ultimate disposition. The funds that EM receives from these NNSA-negotiated rates do not come close to covering EM's liability for these fuels. Also, EM receives no funding to receive, store, and disposition foreign SNF from non-high-income countries.

Recommendations

The SRS Citizens Advisory Board recommends that the Department of Energy:

- 1. Work with appropriate agencies to increase the rates for any SNF and materials shipped to SRS to allow for cost recovery by EM.
- 2. Request NNSA to provide funding to EM for the processing and disposition of any SNF, especially for SNF from the other-than-high-income countries.
- 3. Apply resulting funding income to repair, replace and improve infrastructure at SRS, which store and process said nuclear materials.