SRS Citizen's Advisory Board

Nuclear Materials Committee Meeting

Aiken Municipal Conference Center, Aiken, SC
March 7, 2005

The SRS Citizens Advisory Board (CAB) Nuclear Materials Committee (NMC) met on Monday, March 7, 5:00 PM, at the Aiken Municipal Conference Center, Aiken, SC. The purpose of this meeting was to discuss the Proposed Redirection of the 3013 Container Surveillance and Storage Capability (CSSC), the Status of Nuclear Materials at SRS, the Status of NM Recommendations, and to hear public comment. Attendance was as follows:

CAB Members	**Stakeholders**	**DOE/Contractors**
- Jerry Devitt	Bill McDonell	Kevin W. Smith, DOE
- Karen Patterson	W. Lee Poe	Nick Delaplane, DOE
- Perry Holcomb		Sachiko McAlhany, DOE
- Jean Sulc		Gerri Flemming, DOE
- Robert Meisenheimer		Pat McGuire, DOE
Manuel Bettencourt		Randall Ponik, DOE
Leon Chavous	*Rick McLeod	John Dickenson, WSRC
Wendell Lyon		Bob Hottel, WSRC
Joe Ortaldo	** CAB technical advisor*	David Burke, WSRC
		Steve Kuhl, WSRC
- *NM committee members*		Mtesa Cottemond Wright, WSRC
		Teresa Haas, WSRC
		Lyddie Broussard, WSRC

Note: Bill Willoughby and William Lawrence are CAB members of the NMC, but were unable to attend this session.

Welcome and Introduction

Jerry Devitt, NMC Chair, called the meeting to order at 5:00 PM, and requested that each attendee identify themselves and their affiliation. He encouraged full public participation and then introduced Kevin Smith as the first speaker on the evening's agenda.

F Area Status Announcement, Kevin Smith, DOE-SR

Kevin Smith thanked the committee for the opportunity to publicly share the achievement of a major milestone at the site. He announced that FB-Line has completed their plutonium stabilization and packaging project ahead of schedule. As a result of the full deinventory of FB-Line, the security levels of the facility have been reduced accordingly. In celebration of this significant accomplishment, CAB members have been invited to tour FB-Line on March 8, 2005 as the first members of the general public to enter the FB-Line process areas since it began operations.

Proposed Redirection of the 3013 Container Surveillance and Storage Capability (CSSC), Sachiko McAlhany, DOE-SR

Sachiko McAlhany opened her presentation by acknowledging that the information in her presentation had been presented at the January 2005 CAB meeting so that the Board would be informed of significant changes to the program as soon as it was feasible. She said this presentation was being repeated at this meeting for the benefit of local stakeholders who have been closely following this issue.

She reminded the committee that the CSSC Project was one that is being installed in Building 235-F to conduct surveillance on containers of Plutonium (Pu) as mandated by requirements setforth in DOE-STD-3013. The original project scope called for installing a full capability in 235-F, which included:

- Container surveillance capability that allows for both non-destructive examination (NDE) as well as a destructive examination (DE) techniques
- Pu stabilization and packaging capability that would allow for the safe repackaging of material if a 3013 container were opened
- Expanded storage capacity for the lag storage of additional 3013 containers of Pu as needed.

Ms. McAlhany detailed the major components that were required to provide the 3013 container surveillance and storage capability. She explained each aspect of the surveillance, storage, stabilization, and packaging processes designed to ensure that the Pu would be safely stored at SRS and other locations until a final disposition path is determined.

Ms. McAlhany fielded numerous questions about the requirements and how they would be implemented. When asked about the potential of hydrogen build-up in a 3013 container, she said that the Pu had been treated in a high-temperature furnace prior to packaging to eliminate any moisture. She explained that it was the moisture that could lead to hydrogen generation and a potential for over pressurization of the container. According to Ms. McAlhany, the primary advantage of using digital radiography equipment was to ensure that if this did occur, it would be readily recognized and corrective actions could be taken. The CSSC Project provides the capability to safely remove, stabilize, and repackage the Pu in a container in the event that any bulging of a container was identified that signaled a potential over pressurization. Ms. McAlhany said through testing conducted at Los Alamos National Laboratory (LANL), there is a good understanding of how the Pu will react over time. Additionally, performance of the Pu in 3013s throughout the DOE Complex is recorded through the Material Monitoring and Surveillance System and will be used to provide all Pu storage facilities with indicators of any potential problems.

To explain the basis for the proposed change in the CSSC Project, Ms. McAlhany explained that new Design Basis Threat (DBT) Guidance was issued in 2004. This resulted in enhanced security requirements that must be met to protect the Pu from any potential adversary. The costs associated with implementing the required protection levels are significant, and the guidance suggested consolidating the areas that require it. She reminded the committee that Pu is presently stored in the K Area Material Storage (KAMS) facility, which is located within 105-K. Upon review, it was determined that there was adequate room in 105-K, separate from the KAMS storage area to install the CSSC Project and it would be more cost effective than proceeding with the plans to use 235-F. With that consideration, the site hopes to receive authorization to make the necessary upgrades to consolidate Pu storage and install the full CSSC capability into Building 105-K. In the meantime, the plan calls for 235-F to be deinventoried by September 2006, but will continue to be used for limited surveillance activities until the capability is available in K Area.

She fielded numerous questions about the schedule, costs, and the technical basis for the program requirements. Ms. McAlhany explained that the proposal to move the CSSC Project to 105-K must be authorized by DOE Headquarters and requires the reprogramming of funds and approval from Congress. She said that if this change is approved, the next step would be a conceptual design that would provide sufficient information for the development of an appropriate schedule and cost estimate.

Ms. McAlhany concluded her presentation by reminding the stakeholders that the changes are only a proposal at this time but their comments are welcomed. She said work is ongoing with DOE Headquarters to ensure the final decision is both cost effective and environmentally sound.

Status of Nuclear Materials at SRS, John Dickenson, WSRC and Sachiko McAlhany, DOE-SR
John Dickenson began by explaining that his presentation was designed to provide an update on a list of nuclear materials that had been provided to stakeholders on December 19, 2002. In the interest of keeping stakeholders informed, he said his purpose was to would provide an update on each item so that they would be aware of potential SRS involvement for each of the nuclear materials, including those that did not have a clear disposition path.

Mr. Dickenson explained the significant progress made in meeting the objectives of the Nuclear Materials Stabilization Program and said that 93% of the scope of the program has been completed. He reminded the committee that one of the primary missions of the program is to identify and reduce/eliminate safety risks associated with legacy nuclear materials. He stated that each of the three remaining stabilization milestones is projected to be met either on time or ahead of schedule.

During the discussion of each listed SRS item in the presentation, Mr. Dickenson explained what the item was and the 2002 assumptions of how it would be handled. He detailed the current status of each item and highlighted those that have been completed. For any material yet to be stabilized and/or dispositioned, he provided specific details of the remaining scope of work. In response to a question about the status of the Pu at SRS in 3013 containers, he explained that the stabilization of the material is complete. Mr. Dickenson said the material is safely stored in 3013 containers, which have been placed in KAMS pending a final disposition decision.

Sachiko McAlhany joined Mr. Dickenson to discuss those nuclear materials that were not presently onsite but had a potential to be processed or stored at SRS. She explained that in some cases, the potential for the material to be transported to SRS was quite low. Because SRS had been considered as a potential alternative in an Environmental Impact Statement (EIS) or a variety of DOE studies, the material had been added to the 2002 list for stakeholder discussion. She reviewed each of the materials listed in this category and said that while some evaluations are ongoing , all remain at their current location with no decision made to bring any of it to SRS. When asked about the status of Uranium 233, she said that was an example of a nuclear material that had at one time been considered for SRS, but recent actions indicated that the site was no longer under consideration.

Ms. McAlhany responded to numerous questions about Pu. She reminded the committee that they had been told that preliminary evaluations have led DOE to consider Pu vitrification as a reasonable disposition alternative. It was her hope that she would be able to return to the committee at the next meeting to provide additional information on this topic.

When asked if there was any intent to bring additional Pu material to SRS without a disposition path, Ms. McAlhany responded that DOE would have to negotiate Congress and the State of South Carolina. When asked if this applies to the National Nuclear Security Administration (NNSA), she replied that the law is silent on distinguishing between DOE offices and the NNSA would have to provide a similar notification. During the follow up discussions, Ms. McAlhany explained that a notification to Congress is required but to preserve continued good relations with the State of South Carolina, DOE would ensure they were aware of any plans prior to receipt of any shipment.

Ms. McAlhany emphasized the significant progress that had been made in the Stabilization Program and the few remaining milestones are expected to be met. She said while there are still key disposition decisions yet to be made, she encouraged stakeholders to comment on the future of the program. Ms. McAlhany concluded by saying that DOE intends to keep stakeholders apprised on their progress.

Status of NM Recommendations, Jerry Devitt, NMC Chair and Karen Patterson, NMC Vice Chair
Jerry Devitt asked if there was any discussion on potential recommendations. Karen Patterson proposed that the committee consider a recommendation in support of moving the CSSC Project to K Area.

In regards to existing recommendations, Ms. Patterson raised concerns about the lack of new information on Pu disposition issues. She said there is $10 million in the President's budget, yet this committee doesn't know what it means. She offered the stakeholders a list of specific questions that she and others have generated to help DOE understand exactly the level of detail that stakeholders want. She acknowledged that some of the questions are really directed to NNSA, but some were directed to DOE Environmental Management (EM). She encouraged the stakeholders to review the list and to advise her by March 28 of any additional questions they may have. At that time, she will sort the questions and have them submitted to the appropriate DOE office.

Mr. Devitt stated that when it comes to Pu, the public doesn't see the difference if it is under the control of NNSA or EM. He said stakeholders see it as their site and their issue.

Public Comment
Lee Poe said that the evening's presentations represent a lot of hard work that SRS has done to stabilize the materials. He felt the CAB should provide them accolades for what they have done and what they plan to do in the future. He stated that no nuclear materials should be brought to SRS without a disposition path for that material.

Mr. Poe explained that he would like to see the risk basis for the surveillance requirements assigned to storing plutonium in the 3013 containers. He said that there was a discussion during the presentation about a technically based requirement for a 5-year surveillance for pressurization and a 7-year surveillance requirement for corrosion. Mr. Poe said the two time periods appeared to not be technically based and he felt that no information was given to support these time periods. He said that funding for two facilities was discussed and he would like to know what the risk is if we don't perform the 5-year surveillance but wait until 8 years. He said it makes a difference to determine if you really need to spend the money on two facilities. Mr. Poe is concerned that SRS is spending good money to construct a facility that would not be operated for a reasonable time.

Mr. Devitt asked for any other public comment and with none, he then adjourned the meeting.

For additional information or meeting handouts, call 1-800-249-8155.

Follow-Up Actions
1. Provide information on proposed reallocation of funds.
   Requested by Rick McLeod (Responsible Party: Kevin Smith) COMPLETE
2. What are the amounts of Pu that are included in the 919 3013 containers at SRS, the approximate 1900 3013 containers from Rocky Flats Environmental Technology Site, the 2550 3013 containers at Hanford, and the 211 containers from LANL and Lawrence Livermore National Laboratory?
   Requested by Perry Holcomb (Responsible Party: John Dickenson)
3. Provide a copy of the CAB recommendation that no material should be shipped to SRS without a path for disposal and the DOE response to that recommendation.
   Requested by Lee Poe (Responsible Party: Lyddie Broussard)
4. Provide technical basis information for the 3013 surveillance requirements.
   Requested by Lee Poe (Responsible Party: Sachiko McAlhany)