SRS Citizen's Advisory Board

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Nuclear Materials Committee

Aiken Federal Building, Aiken, SC
December 8, 2003

The SRS Citizens Advisory Board (CAB) Nuclear Materials Committee (NMC) met on Monday, December 8, 5:00 PM, at the Aiken Federal Building, Aiken, SC. The purpose of this meeting was to discuss the HB-Line Neptunium Stabilization Project, Highly Enriched Uranium (HEU) Blend Down Project, Risk Reduction, and to receive public comment.

Attendance was as follows:

CAB Members	**Stakeholders**	**DOE/Contractors**
-Gerald Devitt	Lee Poe	Sachiko McAlhany, DOE
Leon Chavous	Mike French	Jay Ray, DOE
Jean Sulc	Russ Messick	George Mishra, DOE
Harold Rahn		John Dickenson, WSRC
-Bill Willoughby		Albert N. Holloway, WSRC
Murray Riley		Mike Borders, WSRC
	Rick McLeod*	Ron Oprea, WSRC
		Lyddie Broussard, WSRC

*CAB Technical Advisor
-NM committee members
+Facilitator
^Press

Note: Perry Holcomb, William Lawrence, and Wade Waters are CAB members of the NMC, but were unable to attend this session. Jerry Devitt, NMC Chair, welcomed the group at 5:00 PM, requested that each attendee introduce themselves and their affiliation. He announced the evening's topics and introduced Mike Borders as the first speaker.

HB-Line Neptunium Mission, WSRC, Closure Business Unit
Mr. Borders opened his presentation with an overview of the history of HB-Line's stabilization activities. He described the facility configuration and explained that it was divided into three operating areas identified as Phase I, II, and III. Mr. Borders stated that the operations in HB-Line were performed primarily in small tanks and gloveboxes. He recapped the facility's extensive experience with producing neptunium (Np) oxide and explained that they made plutonium (Pu) oxide as recently as this year. According to Mr. Borders, the experience the HB-Line operations staff has had with the production of Pu oxide in Phase II will prove to be

invaluable since this is the facility area that will be modified to accomplish the Np mission.

Mr. Borders explained that the only true bulk quantity of Np 237 material in the United States is located at SRS. He said that the Np is the preferred source material for the production of Pu 238, which is used as a fuel for the National Aeronautics and Space Administration (NASA) program. The mission is also important as it is a key component to meet the 94-1 commitment to the Defense Nuclear Facilities Safety Board for stabilizing at-risk materials. He characterized the Np inventory at SRS as liquid stock having different levels of concentration and impurities. Under the present plans, the Np with the highest concentrations and least amount of impurities will be processed to meet NASA's projected needs. The remaining Np will be disposed of as high level waste.

Mr. Borders highlighted the main components of the Phase II process. He explained that in this process, the operator starts with the liquid solution. Chemical adjustments are made to the solution and it is transferred to the Phase II columns. An ion exchange process is performed using resin in the columns to concentrate and purify the solution. In the next step, the solution is converted to an oxalate that is collected on a screen in a filter boat. It is then transferred to a furnace where the oxalate is baked into an oxide powder. Mr. Borders said the last step in the process is to bag the oxide out of the glovebox and safely seal it into the designated container.

Mr. Borders further stated that the plans call for the oxide powder to be shipped to Oak Ridge in a 9975 package. He fielded numerous questions on the packaging characteristics and it was explained that Oak Ridge was presently evaluating their shipping and storage requirements for the Np. It was further stated that no material would be shipped until Oak Ridge had fully resolved those issues and a package had been certified for the shipment of Np. As a follow-up to that discussion, Jerry Devitt stated that copies of a prior presentation on 9975 packaging containers would be sent out to committee members as background.

Mr. Borders concluded his presentation with additional information on the Np mission milestones and stated that production is slated to begin in 2005. At the current time, the mission is ahead of schedule and within budget constraints.

During a public comment period Lee Poe stated that he had requested a copy of an investigative report on an inadvertent transfer in HB-Line but had been told that in order to receive a copy, he would have to file a Freedom of Information Act (FOIA) form. He stated that while he wasn't concerned about the incident, he was thought DOE's position on the release of the document was unacceptable. In response the committee was told that the requirement to complete a FOIA was applicable when requesting DOE Occurrence Reports. This requirement was put into place as part of the security measures implemented since the attacks of September 11, 2001.

H-Canyon HEU Blend Down Operation, Ron Oprea, WSRC, Closure Business Unit
Mr. Oprea began with a reminder to the committee that he had spoken to them about HEU blend down operations during the April 2002 CAB meeting. He stated that his purpose was to

bring the committee up to date on the progress of the mission.

As a reminder, he stated that H-Canyon is a key component in meeting DOE's objectives for expedited clean up of nuclear materials throughout the DOE complex. The facility has fully embarked on a mission to support the Tennessee Valley Authority (TVA) commercial power reactors by blending natural uranium with HEU. This process creates a Low Enriched Uranyl (LEU) nitrate, which is a feed material that will be processed and fabricated into reactor fuel.

Mr. Oprea explained that the Blend Down Project was completed $33 million under budget and was awarded the DOE Acquisition Project of the year for fiscal year 2003. While the first of the 295 shipments to TVA have begun, he stated that the operations' schedule was adversely impacted due to startup issues by the vendor who was to receive the shipments for TVA. The delays in licensing the vendor's facility resulted in a 15-½ week delay in the first shipment from SRS. Mr. Oprea emphasized that despite the delay, schedule recovery was underway and the original commitment is expected to be met. He said SRS was seeking innovative ways to accelerate the process as well as shipments to meet all commitments. The rate of shipping has been increased as part of the recovery as well as other steps to optimize processing throughput.

In response to questions about the various types of material involved in the HEU Blend Down program, Mr. Oprea explained that the ingots and metal buttons did not require processing in H-Canyon. He stated that these materials would be shipped directly to the vendor. He further stated that shipments of all types of HEU program materials are shipped in certified shipping containers.

Bill Willoughby questioned why the HEU Blend Down program was a topic of discussion at this meeting when other National Nuclear Security Administration (NNSA) programs were outside of the CAB's Environmental Management (EM) charter. In response, the committee was advised that the material to be stabilized was the responsibility of EM and was being processed in H-Canyon, which is an EM facility.

Risk Reduction Discussion
Jerry Devitt stated that this item on the agenda was primarily due to concerns expressed by fellow committee member, Perry Holcomb. Since Mr. Holcomb was unable to attend this meeting, Mr. Devitt said the issue would be tabled until another time.

Public Comment
Mr. Devitt asked for any other public comment and with none, he then adjourned the meeting at 6:45 PM.

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

Follow-Up Actions
NM committee to receive copies of a prior presentation on packaging (Responsible Person: Lyddie Broussard)