



SRS Citizens Advisory Board

**Nuclear Materials Committee
Meeting Summary**

**Aiken Federal Building, Aiken, SC
February 20, 2003**

The Citizens Advisory Board (CAB) Nuclear Materials Committee (NMC) met on Thursday, February 20, 2003, at the Aiken Federal Building, Aiken, SC. The purpose of the meeting was to discuss the following topics: F-Canyon Complex Deactivation Project, and Nuclear Materials Management at SRS, and to hear public comment. Attendance was as follows:

CAB Members

Jerry Devitt*
Murray Riley*
William Lawrence*
Bill Willoughby*
Perry Holcomb*
Bill Lawless

Stakeholders

Mike French
Karen Patterson
Bill McDonell
Carl Mazzolz
Kelly Hunter
Rick McLeod

DOE/Contractors

Sachiko McAlhany, DOE
George Mishra, DOE
Julie Petersen, DOE
Drew Grainger, DOE
Helen Belencan, DOE
Zack Smith, DOE
Phil Breidenbach, WSRC
John Dickenson, WSRC
Steve Williams, WSRC
Teresa Haas, WSRC
Pearce Atkins, WSRC
Robert Meadors, WSRC
Ross Fanning, WSRC
Ken Parkinson, WSRC
Lyddie Broussard, WSRC

* NMC Members present

** Note: Dorene Richardson is a CAB members of the NMC, but was unable to attend this session

Welcome and Introduction

Jerry Devitt, NMC Chair, welcomed the group, requested that each attendee introduce themselves and their affiliation. He encouraged participation from all but asked that questions be held until the end of each presentation.

F-Canyon Complex Deactivation Project

Phil Breidenbach opened his presentation restating his commitment from last year to provide regular updates to the NMC on the status of F-Canyon. He stated that suspension activities designed to reduce hazards and associated costs continue to progress well, and the initial Project Plan for Deactivation of F-Canyon has been submitted to DOE.

As he explained the organization in place to proceed with the reduction of hazards, he reminded the committee that the ongoing activities are not irreversible actions. Mr. Breidenbach referenced a facility life cycle chart and explained that while some could construe some overlap between suspension and deactivation activities, all facility actions are authorized under the F-Canyon Suspension Plan and no deactivation activities would be performed without the prior approval of DOE.

As evidence of significant hazard reduction, he explained that through system flushing and other facility actions, plutonium levels are currently equal to less than 2% of the inventory that was on hand during December 2001. Careful planning was attributed to the complete success of the 18-hour transfer of the Americium/Curium (Am/Cm) to High Level Waste tanks in January 2003, which further reduced facility risks. Success in eliminating hazards was not limited to radiological and criticality concerns since substantial reductions in hazardous chemicals have also been realized according to Mr. Breidenbach.

In response to earlier questions in regards to compliance with the National Environmental Policy Act (NEPA), Mr. Breidenbach provided background information on the NEPA process. He referenced the applicable portions of the Code of Federal Regulations (CFRs) and explained the process by which the levels of review are used. He explained that the current suspension activities conducted in F-Canyon as well as the proposed deactivation activities fall under the Categorical Exclusion (CX) criteria, and all required documentation has been approved by DOE. He further explained that decommissioning F-Canyon would be a new proposed activity which would fall under the requirements mandated by the Comprehensive Environmental Response, Conservation and Liability Act (CERCLA).

He stated that the process to deactivate the F-Canyon Complex would be a complicated one requiring extensive planning. At the current time, over 9000 tasks have been derived from a system by system review, but 4000 of those tasks are associated with the FB-Line facility, which sits atop F-Canyon. While FB-Line operations are ongoing, it is part of the accelerated clean-up initiatives and planning for its deactivation is now underway. F-Canyon services to other SRS facilities, such as cold chemical receipts, are also part of the plans to ensure alternatives for those services are in place prior to F-Canyon deactivation.

He restated that the facility was ready to implement the Deactivation Plan once it was approved and then entertained numerous questions and comments from the committee members. Topics discussed during the question and answer period are as follows:

- In response to a concern about environmental impacts from F-Canyon, John Dickenson explained that the activities under deactivation do not create any new impacts but rather

all activities are controlled under the existing permits and waste streams approved for F-Canyon.

- When asked if the NEPA determination of which activities are considered to be minor is subjective, Drew Grainger replied that classes of action that may be excluded from further NEPA review are published in the CFRs (10 CFR Part 1021). In this case, classes of action B1.27 and B1.28 included the same or very similar activities proposed for F-Canyon such as removing materials, equipment, and waste. He also explained that while CX determinations do not appear in the Federal Register, they are approved by DOE. The current classes of action were published for comment in the Federal Register in 1996.
- As per Phil Breidenbach, the 650 member organization currently assigned to the F-Canyon Deactivation are committed to accomplish specific tasks and as those tasks are completed, it is expected that they will be reassigned into other positions as needed. Deactivation is to be completed by 2006.
- When asked about facility decontamination after the Am/Cm transfer, Phil Breidenbach explained that while the tanks were flushed, the transfer lines are continually used. Additional questions on the methods of flushing, addressing tank heels, and the removal of the total Pu from F-Canyon resulted in a discussion about the washing program for sumps and floors. It was explained that the concern is where can the Pu accumulate and if so, is it mobile. The key to reducing the Pu in the facility is to ensure the reduction in the tanks and pipes. Samplers allow facility personnel to determine the content of tanks. Until such time as it can be shown that the Pu levels are low enough to ensure any criticality scenario is incredible, the facility criticality controls will remain in place. Mr. Breidenbach further explained that a formal process is in place to ensure that those controls will remain until substantiated analysis proves it is safe to remove them.
- Questions on the status of solvent shipment resulted in Mr. Breidenbach explaining that while the shipments were on hold pending approval from DOE, the disposition of the PUREX solvent has no impact on the closure of CIF.
- When questions relative to decommissioning were asked, John Dickenson explained the Facilities & Disposition Department would assume these activities under the Closure Business Unit umbrella once deactivation was completed. As members of the same WSRC business unit, there is ongoing communication between the two groups and such a transition to decommissioning would be seamless.

Nuclear Materials Management at SRS

Sachiko McAlhany reminded the committee of the December 19, 2002 NMC meeting when she told them that DOE was considering alternatives on what could be done to reduce risk complex-wide. At that time she had asked stakeholders to provide input so that she could incorporate their thoughts, concerns, and recommendations as part of the DOE SR response to the DOE EM-1 office. Her purpose for this meeting is to provide a current update on the proposed plans for nuclear materials management and the impact on SRS facilities based on the DOE-SR recommendations in response to the EM-1 letter.

She explained that under the current plans, K Area would still have significant quantities of Pu packaged in 3013 containers and possibly other types of containers that will be stored in KAMs. There continues to be heavy water in K Area but the intent is to disposition this material by

2006. There is also some Highly Enriched Uranium (HEU) in various forms located in K Area and different disposition options are under consideration at this time.

According to Ms. McAlhany, the site continues to receive spent nuclear fuel (SNF) in L Area and the expectation is that the receipt and storage program will continue beyond 2006. In contrast, the Receipt Basin for Offsite Fuel (RBOF) is undergoing deinventory. Under the current schedule, the deinventory of SNF in RBOF to the L Area Basin will be completed by 2004.

She further stated that while Phil Breidenbach's earlier presentation covered F-Canyon in detail, the HEU Blend Down Project in H-Canyon is proceeding and shipments to the Tennessee Valley Authority (TVA) are expected later this year. H-Canyon is also under consideration for the processing of other materials but DOE is still evaluating the alternatives and no final decision has been made at this time.

Ms. McAlhany explained that various teams have been directed by DOE to determine if other DOE program offices could use existing materials under EM-1 control. Evaluations are being conducted to see if such transitions are feasible given budget constraints and DNFSB stabilization commitments.

FB-Line's mission includes characterization of residues in the vaults to determine if dissolving in H area is needed or if the residues can be packaged directly into 3013 containers. She said it is anticipated that FB-Line will complete its mission prior to 2006.

HB-Line will continue to process residues from FB-Line. While no decision has been made, there is a potential that they may also process INEEL oxides. HB-Line will also process Neptunium (Np) into an oxide that will be shipped to Oak Ridge.

When addressing interim storage, Ms. McAlhany explained that there remains large quantities of other nuclear material that will be dispositioned by 2006 but doesn't presently have a definitive disposition path. This includes Pu and SNF and DOE teams are gathering information for potential options. Recommendations are expected from these teams later this year that will define specific disposition alternatives for further evaluation.

Topics discussed during the question and answer period are as follows:

- In response to questions about heavy water, Ms. McAlhany stated that preliminary plans are evaluating if it is more economical to sell the water versus disposal.
- When questioned about the possibility of converting existing F area facilities in lieu of building a new reprocessing facility Ms. McAlhany explained that modifications of F-Canyon and FB-Line were not as economically attractive. She further stated DOE is attempting to focus their investment and without a defined need for F Area, using H Area was a better choice.
- Ms. McAlhany was asked if there were clean-up concerns relative to deinventorying RBOF and she explained that there had been some foreign SNF in RBOF that had experienced clad failures but they had been processed.

- A question was asked about sustaining nuclear weapons and Ms. McAlhany stated that last fall a local public scoping meeting was held as part of the effort to develop a capability to manufacture plutonium pits. A Programmatic Environmental Impact Statement (PEIS) will be issued to support whether to proceed with the facility and if so where to locate it. SRS is one of five sites that is being considered.

Public Comment

Jerry Devitt advised the committee that SRS CAB Chair, Wade Waters, had written Mr. Linton Brooks, Acting Administrator of the National Nuclear Security Administration (NNSA) offering the CAB's assistance. He said the CAB's charter limits their ability to be involved in NNSA issues but they feel strongly that they should be involved. He also reminded members of the planned CAB New Member Orientation later in the month as well as the next CAB meeting which would be held in Augusta on March 24 – 25, 2003.

Bill Willoughby reminded members of the NAS meeting on March 3 – 4, 2003.

With no other public comments, the meeting was adjourned.

There were no meeting handouts for this meeting. For additional information, call 1-800-249-8155.

Follow-Up Actions

1. During the review of F-Canyon Facility Life Cycle surveillance and maintenance costs, Rick McLeod requested more information the cost of suspension and deactivation over the next four years.
Action: Deactivation schedule and cost information to be provided as part of the next quarterly update on F-Canyon to the CAB.
(Responsible Party: Phil Breidenbach)