



SRS Citizens Advisory Board

**Nuclear Materials Committee
Meeting Summary**

**Aiken Federal Building, Aiken, SC
June 30, 2003**

The Citizens Advisory Board (CAB) Nuclear Materials Committee (NMC) met on Monday, June 30, 2003, at the Aiken Federal Building, Aiken, SC. The purpose of the meeting was to discuss the following topics: Plans to Address Remaining Materials Under the F-Canyon Complex Deactivation Project, Defense Nuclear Facilities Safety Board (DNFSB) Letter on Plutonium Storage, and to hear public comment. Attendance was as follows:

CAB Members

Jerry Devitt*
Murray Riley
Wade Waters*
Perry Holcomb*
William Lawrence*
Bill Willoughby*
Deanne Smoak

Stakeholders

Mike French
Russ Messick
Lee Poe

Regulators

Keith Collinsworth, SCDHEC
Charles Gorman, SCDHEC

DNFSB

R. Todd Davis

DOE/Contractors

George Klipa, DOE
George Mishra, DOE
Helen Belencon, DOE
Sachiko McAlhany, DOE
Charles Harres, WSRC
Steve Howell, WSRC
Bill Condon, WSRC
Phil Breidenbach, WSRC
John Dewes, WSRC
Randall Yourchak, WSRC
Barry Shedrow, WSRC
Ken Parkinson, WSRC
Steve Williams, WSRC
Mike Logan, WSRC
Jack Mayer, WSRC
Teresa Haas, WSRC
Lyddie Broussard, WSRC

* NMC Members present

Welcome and Introduction

Jerry Devitt, NMC Chair, welcomed the group at 5:00 PM, requested that each attendee introduce themselves and their affiliation. He introduced the evening's topics and introduced Phil Breidenbach as the first speaker.

F-Canyon Complex Deactivation Project – Plan to Address Remaining Material

Phil Breidenbach opened his presentation stating that his goal was to communicate the basis for reaching the deactivation endstate of F-Canyon. This includes a description of how the material is to be removed, what will be removed, and why it is acceptable to leave some material. He

emphasized that there is significant suspension work left to do and while it is the next step, deactivation will not proceed without DOE authorization. In the meantime, plans for deactivation are being refined which is allowed under the F-Canyon Suspension Plan.

Mr. Breidenbach stated that they are removing hazards on an ongoing basis, and because there are fewer hazards, the cost to manage the hazards is decreasing. He explained that for the work that is left, he has cross-functional teams designed to remove specific hazards. He also reminded the committee that all the products have been removed as of a year ago from F-Canyon. FB-Line continues to process product, but once material processing is completed, the final product will be removed, gloveboxes will be swept, and the sumps cleared. These efforts will be part of what must be done to achieve the Cold, Dark, and Dry objective that will be sufficient to protect the environment and the worker.

Mr. Breidenbach explained that proposed deactivation actions would not do anything that would eliminate future decommissioning options. He said that the decisions have been based on benchmarking results including efforts at sites such as Rocky Flats, Hanford, and West Valley as well as through contractor support that draws from extensive experience with commercial nuclear sites. His team's strategy is focused on determining the best way to measure the material to ensure it is known what is in F-Canyon and then determining how much can be left.

He detailed the FB-Line Residual Material Program, which has been implemented since the early 1990s. Under this program, areas of potential concern were identified and monitoring has been in place for the last ten years. He characterized this program as a good one and believes they will be able to know what and where the material is in FB-Line in preparation for deactivation.

Mr. Breidenbach stated that the situation is not the same in F-Canyon since it is larger and is not hands-on work but rather remote work. He believes a significant amount of the material can be removed out of the facility and reach the goal of less than 5 grams Plutonium (Pu) in each vessel. He is confident that the Cell Floor Flush Program serves to make sure that Pu isn't building up in the cells. He explained that air tunnel inspections have been ongoing because at one time Pu had built up. As part of an established Nuclear Criticality Safety Control, this inspection program identifies how much material is held up in the air tunnels. Another means of identifying the remaining material in F-Canyon is to review the Material Control & Accountability (MC&A) records, which historically account for all Pu and uranium in the facility. Mr. Breidenbach said that while he believes he has good sources to draw his conclusions from, a strategy is being developed to determine if further analysis is needed to meet the following goals:

- Chemical or radiological accidents which exceed worker or off-site dose limits are incredible
- Criticality accidents are incredible
- Attractiveness of the facility as a target is reduced
- Public and environment are protected
- Decommissioning options are not precluded through Deactivation actions

In support of those goals, he said several decisions need to be made. Impacts on ground water must be understood as well as the impacts on the other facilities in the area must be evaluated

when considering decommissioning endstates according to Mr. Breidenbach. He further said a compliance point for F Area must be chosen and the decommissioned state of the facility must be selected with long term stewardship commitments considered. Mr. Breidenbach concluded stating that while the final answers have not yet been determined, the current actions do not represent an environmental threat.

Mr. Devitt opened the floor to questions and Wade Waters inquired on the status of the request for copies of the F-Canyon Suspension Plan. Sachiko McAlhany answered that she is working hard to get the document through the system for release. Several questions on waste were then fielded. Lee Poe asked when would the stakeholders be involved in the four areas of analysis that were explained in the presentation. In response, he was told that while their input was valuable, it was not anticipated that stakeholders would be involved while WSRC is performing the analyses; however, the analysis will be made available upon completion. A lengthy discussion about stakeholder involvement ensued and several committee members stated that they felt early stakeholder participation was needed. Ms. McAlhany responded that once the Deactivation Plan was approved, a detailed workshop will be held. She emphasized that the plan covers many areas, and interested stakeholders will be provided with a copy of the plan as soon as it is approved and invited to a workshop to go over it. She stated that we are very early in the process and there will be ample opportunity for them to go over it and provide significant comment. She stated that the plans will likely be revised and implementation will definitely take several years. Given this schedule, she explained that there would be time for meaningful stakeholder input. Wade Waters responded that he needs to see the Suspension Plan and wants to see a draft copy of the Deactivation Plan. Ms. McAlhany stated she will try to get the plans out as quickly as possible but there are some legal ramifications that have affected their release. Additional questions on remaining materials and the role of CERCLA were asked and answered. Perry Holcomb challenged the assumption that the material could be identified as explained or that it could be safely removed through flushing. He further stated that the public has to be concerned because while they want to leave the absolute minimum in the Canyons, they don't want to do this at a large expense. Jerry Devitt stated that with so many issues, the committee wouldn't resolve them tonight. He requested more detailed communications from SRS on this topic. He acknowledged that the committee had bad feelings about the level of information and asked each member to forward their specific questions to Lyddie Broussard so that future presentations could address some of their concerns.

DNFSB Letter on Plutonium Storage

Jerry Devitt introduced Todd Davis and thanked him for coming to the committee to explain the background of the June 12 letter from the DNFSB to DOE on Pu Storage at SRS. Mr. Davis thanked the committee for the chance to speak and explained that last December the President signed legislation that required the DNFSB to review the K Area Materials Storage (KAMs) facility as well as support facilities such as 235-F, C-Lab, and SRTC. As a result, a DNFSB team reviewed the facilities as well as operational, maintenance, stabilization, and packaging activities. The report from this review is to be published in December 2003.

Mr. Davis explained that the letter in question is due to concerns that the present mission isn't consistent with the safety analyses and there is a concern with the fire detection and alarm system. In one fire scenario, the accident analysis relied upon the ventilation system, but this

system is not classified as a safety system. As a result, the defense board feels it is not appropriate to include it as a mitigating factor. Additional concerns were raised whereby the DNFSB believes that risk should be eliminated as opposed to mitigated such as in combustible loading. He stated the staff is continuing to review the issues and additional reports may be issued over the next several months. Mr. Davis said a 60-day response period is in effect for DOE to provide a response to the June 12 letter from DNFSB Chairman Conway to DOE Secretary Abraham.

In response to Perry Holcomb's question on the amount of residual Pu 238 in 235-F, Mr. Davis said the DNFSB is looking into the current estimates and it drives many of their concerns. Lee Poe asked for more information about the ventilation concerns and Mr. Davis responded that the ventilation flow rate in that area is based on the assumption that it could be maintained at a lower rate. He said there are instruments that could measure it but the flow rate is a function of the ventilation system. Jerry Devitt asked if these concerns were driven by a change in plans for KAMs, and Mr. Davis responded that the DNFSB comments are based on a long-term mission. Sachiko McAlhany stated that fundamentally, the mission for 235-F and KAMs has changed but DOE didn't task WSRC to begin the evaluation to extend the life of these facilities for the longer missions until recently. Concurrently DNFSB has asked their questions about the analysis. She went on to say that these facilities are operating under an Authorization Bases now based on an "x"-year life and DOE agrees that additional safety analyses for a long term mission is appropriate.

Perry Holcomb asked if 235-F was going to be cleaned up prior to storage and Ms. McAlhany replied that the facility is being used for storage now. She went on to explain that in the past there were concerns that performing decontamination activities concurrent with ongoing facility missions could cause problems due to spread of contamination. The decontamination methods that were available when the analysis was performed were not as advanced as today. At that time it was decided to contain the material in the cells, but now DOE has asked WSRC to reevaluate the risk. She concluded that the reevaluation has not yet been completed.

Public Comment

Mr. Devitt requested if the public had any comments at this time. With no other public comments, the meeting was adjourned at 6:50 PM.

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

Follow-Up Actions

- NMC Members are to provide any questions or comments they have on F-Canyon to the NMC Chair or PI Specialist.
- DOE will schedule a workshop on the F-Canyon Complex Deactivation Project once the Deactivation Plan is approved.
- DOE will provide the four areas of analysis that were explained in the F-Canyon presentation upon completion