SRS Citizen's Advisory Board

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Nuclear Materials Committee Meeting

Aiken Municipal Conference Center
Aiken, SC
May 8, 2006

The Savannah River Site (SRS) Citizens Advisory Board (CAB) Nuclear Materials Committee met on Monday, May 8, 2006, 5:00 PM, at the Aiken Municipal Conference Center. The purpose of this meeting was to discuss the Onsite Consolidation of Plutonium to K-Area; the HB Line Ventilation System Project, and to hear public comment. Attendance was as follows:

CAB Members	Stakeholders	DOE/Contractors
- Joe Ortaldo	Lee Poe	Gerri Flemming, DOE
-Wade Waters	Perry Holcomb	Michael Graham, BSRI
- Karen Patterson	Mike French	Kevin Matthews, WSRC
Leon Chavous	Jack Roberts	Rick Walters, WSRC
-Manuel Bettencourt	Bill Willoughby	Paul Sauerborn, WSRC
Jimmy Mackey	Ernie Chaput	Teresa Haas, WSRC
- Gerald Devitt		Larry East, WSRC
Wendell Lyons		Jay Ray, DOE
-Art Domby		Pat McGuire, DOE
Alex Williams		Allen Gunter, WSRC
-David Dawson		**Kevin Smith, DOE
Bob Meisenheimer		Phil Breidenbach, WSRC
Mary Drye		
	Regulators	

- NM committee members

** CAB technical advisor*

*** Deputy Designated Federal Official (DDFO)*

Welcome and Introduction:
Manuel Bettencourt, Chair, welcomed those in attendance and asked them to introduce themselves. He also stated that there was a plan underway to have a NM Committee tour around the 20th of June.

HB Line Ventilation System Project: Scott Booth stated the purpose of the presentation was to present a case study of sound work planning and execution practices. Mr. Booth began by giving a facility background. The Old HB-Line is within the Canyon building and was originally used to handle and process Neptunium and Plutonium. Portions of the facility have been and are still inactive since the early 1980's, and are contaminated. Current facility mission is to provide support for waste handling and neptunium oxide processing. An active exhaust system is necessary to maintain confinement and contamination control.
Mr. Booth stated the problem as follows:

- The existing exhaust fans area over 50 years old
- Fans and filters are located in a hardened structure outside the Canyon structure

- Legacy contamination causes complex work controls to manage radiological hazards
- A leak has formed in the exhaust duct in an inaccessible location
- Unfiltered air from an adjacent facility is being drawn into the OHBL exhaust

Mr. Booth informed the attendees that a technical review directed the installation of two redundant fans, two parallel HEPA filter banks with a wall penetration into the Warm Canyon and duct work; provide necessary interlocks and alarms and install fire sprinklers and alarms.
Mr. Booth stated that the keys to success were the following:

- Smart use of computer flow modeling to evaluate the design, testing and startup of the new system
- Three dimensional design model used for design, construction and placing of equipment in a tight space
- Physical mock-ups used outside the facility to plan complex radiological work and test function of assembled system
- Utilized extensive up front project planning
- Performance against approved baselines continually measured with cost, scope, and schedule

Mr. Booth stated the new system is complete, ahead of schedule and under budget. Current pre-transition testing is in progress along with a facility self assessment and readiness assessment, system transition, post-transition testing and air balance, the safe isolation of the old system with project closeout by September 2006.

In summary, this project increases the safety of the public, worker and the environment. The OHBL Exhaust Restoration project is necessary for the long term safe and viable operation of H-Canyon and HB-Line. This project took extensive planning and preparation which have resulted in a well designed and executed project to be closed out in September of 2006.

Questions raised regarding the presentation were as follows:
Manuel Bettencourt asked how far ahead of cost and schedule was the project? The project was several months ahead and ran approximately 1 million dollars under.
Jimmy Mackey wanted to know if the stack emissions were lower due to the new system. The stack emissions would not change that much, however the HEPA filters collect the bulk of the contamination before it goes through the sand filters and out of the stack into the atmosphere. Perry Holcomb asked if there were lessons learned reported on the project. The project goes through a series of assessments which document the effectiveness of the project; which would allow successful future projects. Phil Breidenbach verified that WSRC does capture lessons learned for future projects.

Onsite Consolidation of Plutonium to K-Area: Mr. Sprague stated the purpose was to provide the status of consolidation of all SRS excess Plutonium (Pu) into a single facility. Mr. Sprague pointed out the current operations at the F-Area Material Storage Facility (FAMS) were:

- Limited extent surveillance operations which provides interim surveillance of Pu stored in 3013 containers and 9975 packages
- Repackaging, measurements, and lag storage of various special nuclear materials until ready for shipment for disposition or interim storage
- Ongoing material shipments to HB-Line, Solid Waste, SRNL and KAC

Mr. Sprague stated the current operations in K Area Complex are:

- Pu storage and continuous monitoring of Pu in 3013 containers inside 9975 packages
- Support of Highly Enriched Uranium (HEU)
    - Packaging and shipment of HEU ingots to offsite vendor

    - Preparation and shipment of excess unirradiated fuel to H Canyon
- Handling, storage, and shipments of Defense Programs Material

Mr. Sprague pointed out the drivers to consolidate into a single onsite facility require certain actions, such as:

- Implementation of updated Safeguards and Security requirements would incur significant security upgrade costs and life cycle costs to maintain two Category 1 nuclear material facilities at SRS
- Eliminate need for safety system upgrades in FAMS required for future operations
- Eliminates shipment of material between K and F Areas
- A full range of Pu handling capabilities including surveillance and stabilization operations can be located in KAC
- Best approach to apply resources for safe Pu handling and storage

Mr. Sprague explained why KAC was chosen:

- Facility was home to K Reactor until program stopped in 1992
- The facility underwent stringent, well-documented earthquake and structural upgrades in preparation fro reactor restart
- Cost benefits were realized by converting robust building into storage facility for Plutonium
- Pu stabilized and sealed into safety class containers first arrived in 2002 and have been safely maintained since that time
- Facility maintained to high standards through various infrastructure upgrades performed over last several years
- Recognized for innovative approach to the safeguards surveillance of nuclear materials through the use of the Continuous Item Monitoring and Surveillance System
- Recognized leader in successful Pu management as shown by working relationship with the IAEA
- Personnel have successful Pu storage experience without a lost workday case in the last 9 years
- Adequate space is available for additional storage, surveillance and stabilization activities

Mr. Sprague identified the K Area Projects as follows:

- K-Area Interim Surveillance and Storage
- K-Area Fire Protection Modifications
- 3013 Container Surveillance and Storage Capability

In summary, onsite consolidation of Pu allows for maintaining one facility to meet Safeguard and Security requirements, de-inventory by 8/30/06 is going well and all materials have a disposition path out of FAMS; Pu capabilities will be maintained or enhanced in KAC; K Area projects result in a cost effective Pu handling facility with a full range of capabilities and the best approach for ongoing safe Pu handling and storage for the public, worker and environment.

Karen Patterson asked how long it would take to get ready to receive offsite Pu? The facility is ready today. If all the Pu is received, how full would the facility be at that time? The facility would be able to hold all the material in a safe and effective manner. Once FAMS is de-inventoried what then happens to the building? The building will be given to D&D for disposition. Lee Poe asked if there was a threat in FAMS? Yes, the Pu238 is a known risk; however, it will be managed appropriately until D&D takes over the responsibility for the building.

Recommendation Review: Art Domby opened a discussion on the Draft motion entitled Nuclear Materials Disposition Consolidation and Coordination Committee. Mr. Domby requested that all proposed changes to the motion be sent to Rick McLeod, Paul Sauerborn or Art Domby. The draft being review at this meeting will not be changed until the Combined Committees meeting in Savannah Georgia on May 23, 2006.

Public Comment: Lee Poe stated that when recommendations are written and responded to by DOE, then there should be a mechanism within the process for the CAB to respond again to DOE within the same recommendation.

Adjourn: Manuel Bettencourt adjourned the meeting at 6:50PM.