

**SRS Citizens Advisory Board
Nuclear Materials Committee Meeting
Aiken Federal Building, Aiken, SC
April 24, 2007**

The Savannah River Site (SRS) Citizens Advisory Board (CAB) Nuclear Materials (NM) Committee met on Tuesday, April 24, 2007, at 5:00 PM, at the Aiken Federal Building, Corporate Pkwy, in Aiken, SC.

The purpose of this meeting was to provide a presentation update on the Enriched Uranium Disposition Project; followed by an opportunity for members of the public to comment on CAB related issues. Attendance was as follows:

CAB Members

- Manuel Bettencourt
- Judy Greene-McLeod
- Karen Patterson
- Stan Howard
- Joe Ortaldo
- Frank Boulineau
Mary Drye
Alex Williams
Leon Chavous

Stakeholders

* Rick McLeod

Jack Roberts
Murray Riley
Russ Messick

DOE/Contractors

Robert Edwards, DOE
Pat McGuire, DOE
Jay Ray, DOE
Sheron Smith, DOE
Sylvia Ellis-Greene, DOE
Jim Moore, WSRC
John Dickenson, WSRC
Stuart MacVean, WSRC
Jeff Allender, WSRC
Rod Rimando, DOE
Scottie DeClue, DOE
Ron Oprea, WSRC
Mark Schmitz, WSRC
Allen Gunter, DOE
Debbie Wisham, V3

- *NM committee members* * *CAB technical advisor*

Welcome and Introduction:

Manuel Bettencourt, Chair, welcomed those in attendance and asked them to introduce themselves. Mr. Bettencourt referred to the meeting ground rules requesting that everyone abide by them.

The meeting continued with Mr. Bettencourt asking Ms. Judy Greene, Vice Chair, to provide a brief statement on the proposed Supplemental Environmental Impact Statement for Surplus Plutonium Disposition at SRS NM Working *Draft Motion*.

Enriched Uranium Disposition Project:

Patrick McGuire, Acting Assistant Manager for Nuclear Materials Stabilization Project (AMNMSP), DOE-SR, began the presentation by introducing key DOE personnel who will be working on the EU Disposition Project. They are Scott DeClue, Spent Nuclear Fuel Program; Jay Ray, Materials through H Canyon; Allen Gunter, Pu Program Manager; and Rod Rimando, Federal Project Director detailed from DOE-Headquarters to provide senior level guidance as we progress with the project.

Mr. McGuire continued by stating the purpose of the presentation is to provide an update on potential missions for the future of H-Canyon (Reference SRS CAB Recommendation #235, dated August 15, 2006) and describe how the Savannah River Site (SRS) EU Disposition Project fits into the complex-wide Nuclear Material Consolidation and Disposition activities described by Charlie Anderson (EM-2) at the March full CAB meeting.

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Mr. McGuire presented the following information:

Background:

- H-Canyon is a radiochemical processing facility
- Began operations in 1955
- Historically has recovered U-235
 - Sister facility - F-Canyon primarily recovered Pu-239 was deactivated in FY 2006
- New HB-Line added in 1980's for production of Pu-238
- No defined mission beyond FY 2007
- Public Law 106-398 as amended by Public Law 108-136 "The Secretary of Energy shall continue operations and maintain a high state of readiness at the H-Canyon facility at the Savannah River Site, Aiken, South Carolina, and shall provide technical staff necessary to operate and so maintain such facility"

Mission Need:

- Before August 2006 – H-Canyon would complete its mission in FY 2007
- Mission Need identified based on the Department's need to be able to disposition EU materials
- August 2006 – Deputy Secretary Clay Sell approved Mission Need (CD-0) for the EU Disposition Project at SRS that continued the operation of H-Canyon as the preferred alternative (CD-1)

Why H Canyon?

- H-Area facilities have processed similar materials in the past and are well suited for proposed materials
- H-Area facilities are the only currently operating facilities capable of disposing these EU materials
- H-Area facilities have downblended HEU to LEU
 - To date, SRS has shipped 221MT of LEU offsite to TVA for commercial power
 - SNF from SRS Reactors
 - SRS Unirradiated Fuel
 - HEU shipped into SRS

Scope of EU Disposition Project:

- Extend Operations of H-Canyon until FY 2019
- H-Canyon provides an exit strategy for EU materials complex-wide
 - Existing on-site EU materials
 - Several metric tons off-site EU materials
 - Al-Clad SNF (both on-site and off-site)
- Project cost between \$4.3B and \$4.6B
- HEU downblended to LEU is less proliferable
- Utilizes energy from U-235 through commercial nuclear power reactors
- ~200 – 250 additional DWPF canisters would be generated

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Summary:

- H-Area facilities are fully capable of dispositioning many DOE materials, both currently residing at SRS and other sites
- H-Area facilities are the ONLY currently operating facilities capable of dispositioning most of these materials
- Most effective use of taxpayer dollars while reducing proliferation risks and providing a final disposition path for these materials

Open discussions included questions from CAB members and the public as follows. Karen Patterson asked in what forms EU can be, that will be processed through H Canyon. Mr. McGuire replied spent fuel, oxide fuel plates, metal alloyed with other items, and anything that has uranium content like Highly Enriched Uranium. He continued that some spent fuel is not aluminum based and can be placed aside, and added that some fuel processed will be from the foreign research reactors.

Manuel Bettencourt stated that according to the National Academy of Science, H Canyon is a unique national asset, one of a kind. He continued by asking if any excess materials across the DOE-complex had been received for processing in H Canyon. Mr. McGuire replied yes, surplus spent fuel at SRS was capable of being processed due to the change in scope. H Canyon has a long history of safety. Jack Roberts asked if the EU Disposition Project is included in the recomplete M&O contract. Mr. McGuire replied yes, that the scope of work is in the current contract and has big cost avoidance.

Karen Patterson asked how the permit delays for Saltstone affect new missions. Mr. McGuire provided that we are going to work through the planning processes, year-by-year, on facilities coming online to ensure no impacts to the Canyon Operations and minimize waste to tanks. Further discussions continued on the Design Basis Threat implementation and security measures required to process the fuel at the Savannah River Site. H Canyon is very flexible and we want to optimize the processing planning to maximize use of the facility. Rick McLeod asked if we expect continuous operations through FY 2019. Mr. McGuire stated, yes, we plan to use the dissolvers as much as possible and plan continued operations through FY 2019.

Jack Roberts asked if the Canyon is able to process now. Mr. McGuire stated that the Canyon is able to, and that we would be completing some upgrades to support switching between materials (\$10M). T DOE Order 413, Project Management criteria will be applied to ensure we have a defined end state.

Mr. McGuire reviewed extensively the Plutonium and Uranium Disposition Process graphics slide that showed photos of the existing facilities and needed facilities to complete the Enriched Uranium Disposition Project. The vitrified Pu processing will produce an additional 100 canisters, assuming that we process the entire 13 MT, and will require a Glass Waste Storage Building #3 to store the canisters. DOE is focused on DOE type fuel disposition, not GNEP which is commercial. H Canyon is not for commercial type work.

Mary Drye asked for clarification on mission need and when determined. Mr. McGuire repeated that before August 2006 H Canyon would have completed its mission in FY 2007, but now the EU Disposition Project has continued H Canyon operations until FY 2019.

Open discussions concluded with Manuel Bettencourt thanking Mr. McGuire for the informative presentation.

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Public Comment:

Joe Ortaldo encouraged attendance at the Waste Management Committee meeting on May 8th. Agenda includes a joint presentation from DOE, NRC, SCDHEC, and EPA. Also, an update will be provided on the CAB position paper on the Saltstone Mod permit issue. He provided a background statement on the CAB position paper to encourage the appeal process to expeditiously resolve all issues.

Adjourn:

Manuel Bettencourt, Chair, adjourned the meeting at 6:17 p.m.