



SRS Citizens Advisory Board

Nuclear Materials Committee

Meeting Summary

May 22, 2000
DeSoto Hilton Hotel
Savannah, GA

The Savannah River Site Citizens Advisory Board (SRS CAB) Nuclear Materials (NM) Committee held a meeting on Monday, May 22, to discuss the draft Nuclear Materials Integration report to be presented to Congress.

CAB Members

Tom Costikyan
Ken Goad
Jean Sulc
Bill Willoughby
Brendolyn Jenkins
Charlene Townsend*
Lane Parker*

DOE/Contractors

Charlie Anderson, DOE
Jim Bilyeu, DOE
Donna Martin, WSRC

*CAB NM members not present

Tom Costikyan, NM Committee chair, opened the meeting, introduced new committee members Bill Willoughby and Jean Sulc then introduced Jay Bilyeu, DOE-SR Nuclear Materials Management Division. Bilyeu said his presentation entitled "A Strategic Approach to Integrating the Long-Term Management of Nuclear Materials" is an overview of a draft report due to Congress.

Bilyeu explained the management of nuclear materials is shared by several programs, Environmental Management (EM), Defense Programs (DP) and Materials Disposition (MD). To better understand the relationship of integration of nuclear materials management with DOE, as well as the cost implications, Congress passed a law requiring that DOE provide a report to them proposing integration of nuclear materials.

Much of the work is being conducted under EM's Nuclear Material Stewardship program. DOE-HQ, Savannah River and Albuquerque offices joined in 1998 to develop the Nuclear Material Integration (NMI) plan. Bilyeu said the CAB has been briefed on draft material management plans and planning cases over the past two years. The first product of the entire Nuclear Material Stewardship Initiative will be the report to Congress—the Integrated Nuclear Materials Management Plan.

Bilyeu said the document charts a course for improved departmental nuclear materials management. SRS will be a big player in executing the plan due to SRS's unique capabilities in the stabilization of much of the material as well as its own large holding of the materials. This plan is the first consolidated account available to Congress and the public of DOE's unclassified inventory of nuclear materials and a description of how and why DOE manages them.

Materials covered in the plan include plutonium and uranium (clean metal, impure oxide and fresh fuel), DOE-owned spent nuclear fuel, and other nuclear materials such as special isotopes, orphans and non actinides. Commercial spent nuclear fuel, waste (high-level, transuranic and low-level) and contaminated media (soils, groundwater and buildings) are not in the scope of the plan. The ultimate disposition goal of all of the nuclear materials in the plan is final disposition in a geologic repository.

Bilyeu then explained the various cost breakouts per program for Fiscal Year 2001. EM receives 75% of funding, MD 13%, DP 8%, Nuclear Energy 4% and Naval Reactors 1%. Costs per function include 47% on storage, 34% on stabilization, 11% on disposition, 7% on transportation, and 1% other.

The plutonium material falls into three different categories: weapons stockpile, programmatic for non-national security and excess or surplus. The weapons material will be maintained in a stockpile and the programmatic plutonium will be stored until decisions on programmatic use are determined. The excess plutonium will be sent to a federal geologic repository as spent nuclear fuel, dispositioned in a hybrid approach by making mixed oxide fuel or immobilized in a ceramic form in vitrified high level waste. Residues from pit repackaging will be sent to the Waste Isolation Pilot Plant.

Bill Willoughby asked if the surplus plutonium disposition program would proceed if Russia does not move forward. Bilyeu said progress does depend on Russia, and if Russia does not comply with the agreement, the plutonium will probably be placed in storage. He then described how the DOE Plutonium Complex should look in 2000 and beyond, focusing on the role of each DOE Site.

Managing uranium is also a major effort in the NMI. Bilyeu said DOE must deal with surplus highly enriched uranium, low enriched uranium, natural uranium, depleted uranium and uranium-233. Of the various forms of uranium, the U-233 presents the greatest hazards because it is hard to shield; and has problems with radioactive gases. About 61% of U-233 is irradiated fuel and targets, 38% is oxide and the remaining 1% is metal and compounds. DOE is considering an option to send part of the U-233 to Savannah River to recover the decay products for medical applications.

To establish momentum the Nuclear Materials Stewardship Initiative has developed a 25-point, multi-year agenda. The major headings include policy; organization and budget; planning, analysis, and decision-making; stakeholder and public involvement; plutonium; uranium; and transportation and containers. DOE's new Nuclear Materials Council will manage this agenda.

Costikyan said he is aware that Congress requested the Integrated Nuclear Materials Management Plan, although he wonders if Congress will understand the information. He is also looking for issues to be considered for a CAB recommendation. Brendolyn Jenkins asked if the public would be informed on the materials coming to SRS and those needing to leave SRS. Bilyeu pointed out the stakeholder and public involvement portion of the agenda that will be used to execute recommendations in the report to Congress.

Issues: SRS-related actions in the plan: what are they?

Actions: Provide handout package of past meetings to new committee members. Keep NM committee updated on NMI progress. Provide copies of the Plan when issued.

For copies of meeting handouts call 1-800-249-8155.