



SRS Citizens Advisory Board

Nuclear Materials Management Subcommittee

Meeting Summary

December 12, 1996

North Augusta, S.C.

The Citizens Advisory Board (CAB) Nuclear Materials Management (NMM) Subcommittee held a meeting on Thursday, December 12, North Augusta Community Center, North Augusta, SC. Subcommittee members attending were Tom Costikyan, chairperson, and Suzanne Matthews. Savannah River Site resource personnel attending included Donna Martin and Rick Geddes, Westinghouse Savannah River Company (WSRC), Jay Bilyeu, Associate Designated Deputy Federal Officer, and Drew Grainger, Department of Energy-Savannah River. Kent Fortenberry attended from the onsite Defense Nuclear Facilities Safety Board (DNFSB). The South Carolina Department of Health and Environmental Control was represented by Tim Mettler. Public attendees were Lee Poe, Joe Gilkison, Allen Blancett, and David Losey. Todd Crawford, CAB technical advisor, and Walt Joseph, CAB facilitator, also attended.

Rocky Flats Plutonium Residue/Scrub Alloy EIS

Tom Costikyan opened the meeting by stating that the CAB subcommittee would address the Rocky Flats Plutonium Residue EIS. To prepare for the EIS, Todd Crawford, CAB technical advisor, was asked by the subcommittee to review the Notice of Intent and identify the specific issues which could be addressed by the CAB.

Crawford gave a quick overview of the National Environmental Policy Act (NEPA) process then focused on the specifics of the EIS. He said the EIS will evaluate the alternatives for stabilizing plutonium residues currently in storage at Rocky Flats. Crawford explained the material being considered in the EIS includes ash, salt and wet residues and scrub alloy. The plutonium residue at Rocky Flats was not considered in the Storage and Disposition of Weapons Usable Fissile Materials because it contains less than 50% plutonium content. Only material over 50% plutonium content is identified as weapons-usable plutonium.

Sending the material to SRS for stabilization is one of the alternatives being considered in the Rocky Flats EIS. Other alternatives include stabilizing the material at Rocky Flats with either a nonchemical or chemical separation process.

One reason for shipping the material from Rocky Flats to another site is due to DOE's decision to close Rocky Flats. According to Jay Bilyeu, DOE-SR, cleanup plans for Rocky Flats include leveling all facilities and restoring the land. Crawford added SRS is being considered because it already stored 6 kilograms of scrub alloy transported from Rocky Flats to SRS for chemical separation and it has processes and facilities capable of treating many of the residues.

EIS Specifics

Crawford said several different alternatives for stabilizing the material are listed in the Notice of Intent. The no action alternative is to leave the material at Rocky Flats and store it in vaults. Other alternatives for Rocky Flats include: (1) treatment without chemical separation—dilution of the material to standards acceptable at the Waste Isolation Pilot Plant (WIPP), and (2) treatment with chemical separation—storing the separated plutonium until final plutonium disposition is finalized and sending the remaining wastes to WIPP.

Concerning treatment without chemical separation, Crawford noted the process at Rocky Flats would be extremely costly and would greatly increase the volume of the material. For treatment with chemical separation, facilities would have to be built. Crawford said he believes treatment at another location—SRS in particular—will be prominently considered.

The chances of SRS being selected to stabilize some of the residue are high. Crawford pointed out SRS has historically separated the plutonium from the residue, and on December 9, Secretary O’Leary announced DOE plans to ship 10 metric tons of Rocky Flats’ surplus plutonium oxides and metals to SRS by 2002. He also said new technologies or facilities are not required to stabilize material at SRS. Rick Geddes confirmed the plutonium residue could be managed in existing SRS facilities.

Costikyan asked about the treatments required for the different forms of residue. Geddes said the salt residues contained chlorides which could cause the processing equipment to deteriorate. The salt residue material would likely be scrubbed before sent to SRS.

The biggest challenge, Geddes emphasized, is the ash residues. Several requirements must be met before DOE could send ash to SRS. One of the first requirements is meeting federal shipping regulations to avoid gas generation in the shipping containers from the ash.

Poe asked Geddes if SRS is capable of treating all of the residues addressed in the EIS. Geddes said about 60% of the residues have very low levels of plutonium and will likely be treated at Rocky Flats. However, 40% of the richer material could be treated and stabilized within the next five years at SRS, with the exception of the ash. SRS would likely have to start up the New Special Recovery Facility, a facility built in the 1980s but never operated, to treat the ash.

Geddes added that treating some of the Rocky Flats residue was included in the DOE-SR Ten Year Plan. According to cost analysis, treating residue at SRS rather than at Rocky Flats would save DOE \$470,000,000.

Potential Issues

Poe said the CAB should address the EIS by looking at potential issues versus benefits. For example, he said the Rocky Flats residue will add to the quantity of material already at SRS. He also pointed out even in disposition actions, plutonium is not completely destroyed when mixed with oxide and burned in a reactor.

Poe said the biggest issue with the Rocky Flats material is that it is not as safe as material already in storage at SRS. The material is similar to the unstable materials identified at SRS for immediate stabilization in the Interim Management of Nuclear Materials EIS. Not only does the material have less stability, he said treating the Rocky Flats material would double the amount of less desirable material in storage at SRS. Suzanne Matthews said if the material was safer at SRS than at Rocky Flats, then she preferred having it stored and processed at SRS.

When asked about the unstable nature of residues, Geddes said a potential situation that could arise from storage of unstable material included an explosion in a storage container that could contaminate workers. However, he said the key issue is ensuring DOE provides key resources—particularly funding—to conduct the stabilization work if the residues come to SRS. If resources are provided, Geddes said he is confident SRS would have the capacity to stabilize all of the material identified to be potentially shipped from Rocky Flats. He emphasized that stabilization of the Rocky Flats material was considered in the Ten Year Plan mortgage reduction opportunities.

Poe then questioned if any of the material was identified as Resource Conservation and Recovery Act (RCRA) waste. Geddes said due to a state court ruling, the ash and fluoride material were considered RCRA-listed waste.

Subcommittee Focus

Before concluding the meeting, Costikyan said a recommendation from the NMM subcommittee should be a straightforward and simple statement. Poe suggested the CAB carefully look at the materials considered as RCRA waste as well as insist material is not sent to SRS unless a total commitment of resources for SRS is made by DOE. Poe also said the CAB should state that DOE should integrate waste receipt and disposition activities.

In closing, Costikyan said he would develop a statement for the subcommittee to review and discuss on January 27, the evening prior to the full CAB meeting. After the statement was refined, it would be introduced to the CAB the following day for a full vote.

As a precursor to the motion, the subcommittee decided to send a letter to DOE stating an official comment on the EIS would be submitted to DOE after the public comment period. Drew Grainger, DOE NEPA officer, said he would also communicate the request to DOE-HQ.

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