



Savannah River Site Citizens Advisory Board

Recommendation 232

Nuclear Materials Disposition Consolidation & Coordination Committee

Background

In February 2005, Department of Energy's (DOE) Secretary Bodman established the Nuclear Materials Disposition and Consolidation Coordinating Committee (NMDCCC) which is chartered to identify opportunities for materials disposition and consolidation. The NMDCCC is charged with considering all aspects of material consolidation to include impacts on operations, transportation assets and realistic schedules. Mr. Charlie Anderson, Principal Deputy Assistant Secretary for the office of Environmental Management, was appointed chairman of the committee on November 15, 2005. Since Mr. Anderson became the chairman of the committee, NMDCCC meetings have occurred at least once a month, and have included representatives from each DOE organization that is responsible for nuclear materials (the "core group"), as well as senior advisors from other organizations within the DOE. The Defense Nuclear Facilities Safety Board has also been briefed monthly (Ref. 1)

While individual programs within the DOE, such as the Office of Nuclear Energy, NNSA, and EM, have their own disposition and consolidation projects, the purpose of this committee is to ensure integration of individual program efforts and a complex-wide, integrated strategy. The principal mission of the committee is to provide a forum to perform cross-cutting nuclear materials disposition and consolidation planning with the objective of developing recommendations, in the form of implementation plans for consolidation and disposition.

The NMDCCC is taking a structured, streamlined approach to its mission: identifying specific challenges/problems; marshalling the known, pertinent facts and source documents; examine alternatives and their costs to address the activities; identify feasible and "usable" alternatives; and provide recommended paths forward. In this regard, the Secretary of Energy has challenged the committee to develop accurate, supported cost estimates. The committee has initially outlined four major areas for examination: (Ref. 2):

1. Listing of near-term materials the committee would address,
2. Prioritization of these materials,
3. A strategic plan to address the path forward, and
4. Development of implementation plans to address each individual issue.

The committee is about a year and half away from delivering the strategic plan. The strategic plan sets the stage for the committee to develop individual implementation plans. Implementation plans will be transmitted, as appropriate, to the Secretary for final decision after approval by the NMDCCC. An individual implementation plan will reflect the committee's approach and consist of a:

- Clear concise statement of the problem addressed,
- Listing of all known pertinent facts, including source documents,
- Listing of alternatives,

- Cost evaluation of viable alternatives, and
- Recommended path forward.

The committee has identified eight near-term issues:

1. Consolidation of excess plutonium-239 from Hanford
2. Removal of surplus weapon pits from Zone 4 at Pantex
3. Disposition of U-233 from Oak Ridge National Laboratory
4. Removal of surplus material from Y-12 (enriched uranium fuel that originated at Aberdeen)
5. Removal of surplus material from Los Alamos National Laboratory
6. Removal of all Category I and II material from Lawrence Livermore National Laboratory
7. Removal of Sandia National Laboratory nuclear materials
8. Consolidation of plutonium-238

After examining these issues, the committee concluded the top priority facing the committee was to identify a path forward for the plutonium-239 at the Hanford site. This issue was determined to be the highest priority for the committee chiefly because of significant funding that would be required at Hanford to meet the latest design basis threat standard (security). While developing the implementation plan of consolidation of plutonium-239 the committee has identified three alternatives and is currently evaluating each: 1) continued storage at a current site, 2) consolidation and storage at an interim site, and 3) consolidation and storage at the disposition site.

Comments

While DOE has not yet made a decision to further consolidate nuclear materials, the NMDCCC appears to be active in development of a strategic plan for consolidation. Near term the committee is focused on the development of plutonium-239 Implementation Plan. The Savannah River Site (SRS) CAB is interested in this Plan and the committee's other activities and reaffirms its previous positions related to consolidation of nuclear materials at or from SRS.

In the past (Ref. 3, 4, 5), the SRS CAB has asked DOE to expedite the development of a complete, well-considered plan for the disposition of all excess plutonium to preclude unnecessary extended storage at SRS. The CAB has also asked that DOE not ship plutonium to SRS until there is a realistic overall disposition strategy for the stored plutonium. The CAB has expressed its view that a percentage of the current inventory of stored plutonium be removed from SRS before any additional plutonium is received from other facilities. The CAB's basic concern is that SRS not receive additional plutonium until a viable and demonstrated disposition path is available and DOE knows how it is going to process plutonium from vulnerable form(s) to less vulnerable form(s).

Recommendation

The SRS CAB recommends that DOE-SR:

1. Provide timely updates on the Nuclear Materials Disposition and Consolidation Coordinating Committee (NMDCCC) activities to the SRS CAB whenever committee deliberations/decisions may affect SRS.

2. Notify the SRS CAB (within classification constraints) before shipments of nuclear materials destined for disposition involving SRS are made and any time a decision by NMDCCC implicates or impacts SRS or ongoing remediation activities at SRS (e.g. deferral of decontamination, decommissioning or dismantlement of SRS facilities).
3. Allow the SRS CAB to review and provide input on the draft findings and identified alternatives for the plutonium-239 consolidation implementation plan, prior to the finalization by the NMDCCC.
4. Send no additional plutonium or plutonium-laden materials which will have to be dispositioned under the proposed plutonium-239 consolidation implementation plan to SRS until a materials disposition path has been determined and a formal adoption of and commitment to a strategic plan and implementation plans, including a detailed schedule for removal of SRS material.

References

1. Nuclear Materials Disposition and Consolidation Coordinating Committee Update, presentation to the SRS CAB by Charlie Anderson, March 28, 2006.
2. Testimony of Charles E. Anderson, Principal Deputy Assistant Secretary for the Office of Environmental Management, before the Subcommittee on Strategic Forces Committee on Armed Services U. S. House of Representatives, April 5, 2006.
3. Citizens Advisory Board Recommendation No. 223 (adopted September 27, 2005), "Plutonium Consolidation – GAO Report."
4. Citizens Advisory Board Recommendation No. 218 (adopted July 26, 2005), "Hanford Limited Plutonium Disposition Mission."
5. Citizens Advisory Board Recommendation No. 214 (adopted May 24, 2005), "Plutonium Disposition Options".

Agency Responses

[Department of Energy-SR](#)