Savannah River Site

Citizens Advisory Board

Recommendation No. 158

Glass Waste Storage Building #2

Background

Currently, canisters of vitrified High Level Waste (HLW) produced by the Defense Waste Processing Facility (DWPF) are stored on-site in a dedicated interim storage building called Glass Waste Storage Building #1 (GWSB#1). This building is a below-grade, seismically qualified concrete vault that contains support frames for vertical storage of 2,286 canisters. The storage vault is equipped with forced ventilation cooling to remove radioactive decay heat from the canisters. An industrial steel frame building encloses the operating area directly above the storage vault. A 5-foot thick concrete floor separates the storage vaults from the operating area (Ref 1).

Based upon current assumptions of DWPF canister production rate, GWSB#1 will reach capacity in October 2006. If a 10% over/under assumption rate error is used, the building could reach capacity as early as June 2006 or may not reach capacity until February 2007. Currently, conceptual design preparations are under way for a Glass Waste Storage Building #2 (GWSB#2) and DOE has developed an acquisition strategy and formulated a project schedule. The GWSB#2 design will be similar to GWSB#1 with a total estimated cost of approximately \$80 million (Ref. 2). The conceptual design has incorporated many of the suggestions from a 1995 Savannah River Site (SRS) Citizens Advisory Board (CAB) recommendation (Ref. 3).

DOE plans to establish a design/build subcontract for GWSB#2 and setting it aside for a small business award. DOE-HQ will direct the procurement and DOE-SR will act as the project manager with the US Army Corps of Engineers acting as the construction manager. The current project schedule has the finish date set as March 2007.

Comment

The CAB is pleased with DOE's attentiveness to previous recommendations and believes the incorporated comments will enhance the conceptual design. However, the CAB is concerned about the current mismatch in the project schedule (GWSB#2 finish date of March 2007 versus anticipated need date of October 2006) and the current acquisition strategy. The current acquisition strategy has four different organizations involved in the process, DOE-HQ, the potential Small Business Contractor, DOE-SR, and the US Army Corps of Engineers (COE). The interactions and communications among these organizations will definitely have an impact on the schedule and project cost. Based upon the large estimated project costs, the CAB also has concerns about the multiple-year funding commitments. A decision to shutdown DWPF operations or drastically reduce the production rate to accommodate the project schedule of GWSB#2 is unacceptable.

Recommendation

Based upon these concerns, the SRS CAB makes the following recommendations:

1. DOE revise the project implementation and prepare a contingency plan to meet the current projected need date for GWSB#2 of October 2006 and present the revised

schedule and contingency plan to the CAB on or before March 25, 2003. This presentation should include justification for all schedule reductions.

- 2. DOE investigate streamlining the current acquisition strategy, specifically requiring the contractor be responsible for the detailed project and construction management with DOE and COE having an overview function. Present the findings of this investigation to the CAB on or before March 25, 2003.
- 3. DOE present the anticipated funding needs for GWSB#2 for FY03, FY04, FY05 and FY06 to the CAB on or before March 25, 2003.

References

- 1. Savannah River Site High Level Waste System Plan, Westinghouse Savannah River Company, Report HLW-2002-00025, Revision 13, March 2002.
- 2. Glass Waste Storage Building #2, presentation to WM Committee by Kim Sidey, December 10, 2002.
- 3. Citizens Advisory Board Recommendation No. 13 (adopted November 26, 1995), "High Level Waste Storage Building".

Agency Responses

Department of Energy-SR