



### Recommendation No. 143

October 23, 2001

#### Operating Strategy Studies for the Solid Waste System Plan

##### **Background**

The Savannah River Site (SRS) Citizens Advisory Board (CAB) is concerned about the technical issues of disposal of non-compacted waste, specifically potential long-term subsidence of the soil cover in the E-Area trenches. Based upon this concern, the SRS CAB adopted Recommendation #119, which asked SRS to evaluate the potential cost savings of disposing non-compacted wastes versus the increase in the costs of treating subsidence and consequently the long-term costs of closing the trenches (Ref. 1). In its response, DOE-SR stated that a presentation on the resulting study would be available during the summer of 2001 (Ref. 2).

The study was discussed with the SRS CAB at the combined meeting on August 28, 2001 and at the Waste Management Committee meeting on October 15, 2001 (Ref. 3). The study concluded that:

- The use of B-25 boxes as disposal containers resulted in a large inherent delayed subsidence potential.
- Expenses associated with the B-25 boxes as disposal containers, super compactor operation, and subsidence repair dominated the costs.
- The benefits of using the super compactor along with Dynamic Compaction compared with only Dynamic Compaction resulted in a reduced subsidence potential of only 7 inches.
- The benefits of using the super compactor along with Dynamic Compaction compared with only Dynamic Compaction decreased the required engineered trench area by 42 percent.

##### **Comment**

The study addressed Recommendation #119 and provided useful information. However, the results of the study indicated that further investigation is needed. The SRS CAB is interested in the effect of different operation and closure strategies. In addition, the SRS CAB is interested in the long-term impacts to human health and the environment.

##### **Recommendation**

The SRS CAB recommends that SRS prepare the following operating strategy and cost studies. The first update to the SRS CAB on the operating strategy study is required by March 22, 2002.

1. Investigate alternatives to the B-25 disposal containers, which includes the possibility of direct shallow-land burial of appropriate low activity, low level wastes.
2. Investigate alternatives to reduce the subsidence repair costs.
3. Evaluate alternative capping strategies.
4. Evaluate alternatives to optimize land utilization.
5. Provide the long-term public health and environmental impacts for each strategy.

##### **References**

1. SRS CAB Recommendation 119, "Compacted Versus Non-Compacted Waste Disposal in the E-Area Trenches", March 28, 2000.
2. Letter to Ms. Karen Patterson, SRS CAB Chair from Greg Rudy, Manager Savannah River Operations Office dated April 12, 2001.
3. Effects of Eliminating Compaction of Job Control Waste, presentation to the WM Committee by Elmer Wilhite, October 15, 2001.

##### **Agency Responses**

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