Recommendation 174
Low Curie Salt Waste Stream Characterization

Background
The tailored treatment approach proposed for Salt Processing will require the existing
Saltstone facility to be able to accommodate up to 0.4 curie/gallon of radioactive waste. Under
the old In-Tank Precipitation (ITP) process, the cesium and actinides were removed, sent to
DWPF, mixed into glass and the resulting wastewater (0.005 curie/gallon) was sent to
Saltstone. This was 95% of the waste volume but only 0.1% of the radionuclides. Under the
tailored treatment approach, 96% of the waste volume still goes to Saltstone but the
radionuclide portion increases to 4%. Furthermore, the new approach could mean that 20
million curies would remain on site as opposed to the planned 70 thousand curies when ITP
was being used (Ref. 1).

The issue of increased levels of radioactivity disposal was a major topic of discussion during
the in-depth Waste Management (WM) Committee meetings focused on the Salt Disposition
topic. Therefore, how much radioactive waste leaves the Savannah River Site (SRS) and how
much is safe to remain is open for debate. Before SCDHEC can permit the Saltstone facility to
receive the proposed 0.4 curie/gallon waste stream, public policy needs to be established and
input and guidance received from the public and all authoritative parties [SC Nuclear Advisory
Council, SC Legislature, and Governor’s office] (Ref. 2 and Ref. 3). Currently, SCDHEC has
suspended all review activity of the low curie salt waste stream characterization, until the high-
level waste classification issues have been addressed. However, SCDHEC has expressed a
desire to work with DOE to develop a high-level waste classification strategy (Ref 4).

Comment
As voiced repeatedly in numerous motions (Ref 5, 6,7,8,9,10), the primary concern of the SRS
Citizens Advisory Board (CAB) is to accelerate the HLW Tank closure schedule and to have a
salt processing facility operational by 2010, which is only six and a half years away. A key
objective in accelerating the HLW closure process is the ability to process some low curie salt
in the Saltstone facility.

Recommendation
The SRS Citizens Advisory Board (CAB) is interested in accelerating the public policy debate
to resolve the low curie waste characterization issue and therefore recommends the following:

1. SCDHEC reconsider the suspension of the review activities associated with low curie
   salt waste characterization.
2. SRS and SCDHEC work together with public input through the public policy process to
determine the quantity of low curie salt that can be safely stored in South Carolina.
3. SRS and SCDHEC work together to plan and conduct a public education meeting for
   interested stakeholders to begin the public policy process. A timeline for holding the
   public education meeting is requested by November 17, 2003.

References
1. Preparing Saltstone for Low Curie Waste, presentation to the WM Committee by Dennis
   Thompson, June 24, 2003.
4. Mr. Roger Gill, Manager Facility Engineering Section, South Carolina Department of
   Health and Environmental Control, letter to Mr. Keith Liner, Westinghouse Savannah


10. Citizens Advisory Board Recommendation No. 159 (adopted March 25, 2003), "Low-Curie Salt to Saltstone."

Agency Responses

South Carolina Department of Health and Environmental Control (PDF)