



**Savannah River Site  
Citizens Advisory Board  
Recommendation 224**

**Draft 3116 Determination Document for Closure of Tank 19 and Tank 18**

**Background**

The President signed the National Defense Authorization Act (NDAA) for fiscal year 2005 into law on October 28, 2004. Section 3116 provides the Secretary of Energy, in consultation with the Nuclear Regulatory Commission, the authority to determine that certain waste from reprocessing is not high-level waste (HLW) if the provisions set forth in Section 3116 are satisfied (Ref. 1).

The waste in tanks at Savannah River Site (SRS) are not high-level waste if according to the following Section 3116 criteria, (1) the waste does not require permanent isolation in a deep geologic repository for spent fuel or high-level radioactive waste, (2) the waste has had highly radioactive radionuclides removed to the maximum extent practical and (3) the waste either **does not exceed** concentration limits for Class C low-level waste and will be disposed of in compliance with the performance objectives of 10 CFR 61, Subpart C and pursuant to a State-approved closure plan or State-issued permit or, if the waste **does exceed** concentration limits for Class C low-level waste, the waste will be disposed of in compliance with the performance objectives of 10 CFR 61 Subpart C, pursuant to a State-approved closure plan or State-issued permit and pursuant to plans developed by the Secretary in consultation with the NRC (Ref. 2).

The next two tanks to be closed are Tank 18 and Tank 19 and both have enforceable deadlines under the Federal Facility Agreement (FFA). The current FFA closure dates are October 31, 2006 for Tank 19 and February 28, 2007 for Tank 18. The purpose of the draft 3116 Determination Document is to demonstrate and document that the solidified residual tank's wastes (including tank structure and equipment) in Tank 19 and Tank 18 meet the criteria above and therefore may be disposed of as low-level waste (LLW) in-situ (Ref. 3).

This draft 3116 Determination will be finalized after DOE has completed consultation with the Nuclear Regulatory Commission (NRC) and the Secretary has made a Determination pursuant to Section 3116. Though not required by Section 3116, DOE is also issuing this draft 3116 Determination for public review and comment. The comment period will end on November 21, 2005.

**Comment**

The Savannah River Site (SRS) Citizens Advisory Board (CAB) has followed the HLW tank closure issue for many years as noted by numerous motions (Ref 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15). A constant theme throughout has been the urgency to minimize the greatest remaining risk at SRS – the waste in the HLW tanks. The SRS CAB's expectations were summarized in its last recommendation (Ref. 15), which identified the following priorities for the SRS HLW processes: (1) salt waste disposition, (2) bulk removal from the tanks, and then (3) tank closure.

While we understand that further consultation between DOE and NRC is required, the SRS CAB agrees with DOE's conclusion in the draft 3116 Determination that the solidified residual Tank 19 and Tank 18 wastes are not HLW. The SRS CAB believes the solidified residual waste should be disposed of as low-level waste and the HLW tanks closed using an engineered cementitious mixture.

It is obvious that the current FFA commitment date for closure of Tank 19 and potentially Tank 18 will not be met. The SRS CAB is disappointed with this fact. However, once the 3116 Determination is finalized and the requirements of a State-approved (SCDHEC) closure plans are met, the SRS CAB expects DOE to make up for lost time related to HLW tank closure.

A key element in a State-approved closure plan is a tank performance assessment that demonstrates that releases from Tank 19 and Tank 18, as well as the combined tank farm shall not exceed protective standards for the public. The SRS CAB understands that this assessment along with a description of each tanks characteristics of any remaining heel in the tanks and the stabilization process will be included in each tank closure module. These modules are required before any final closure activities

can start. The SRS CAB believes that development of these closure modules should commence as soon as possible.

### **Recommendation**

While the SRS CAB agrees with DOE's conclusion in the draft 3116 Determination, it offers the following recommendations to accelerate closure of Tank 19 and Tank 18:

1. DOE-SR provide both tank closure modules to SCDHEC no later than October 1, 2006 and provide the SRS CAB by this same date with information to demonstrate that residual radioactivity in the tank heels meets the applicable performance objectives for tank closure.
2. DOE-SR commit to providing all necessary resources to address NRC's Request for Additional Information (RAI) by April 1, 2006.
3. DOE-SR commit to recapturing as much of the closure schedule as possible and strive to meet the existing FFA deadlines for tank closure but in any event commit to finishing Tank 19 and Tank 18 closure no later than the end of FY 07.
4. SCDHEC weigh the reasons why DOE-SR has been unable to meet the FFA deadlines for Tank 19 and Tank 18 closure before taking any enforcement actions.

### **References**

1. Federal Register, Vol. 30, No. 194, Notice of Availability of Draft Section 3116 Determination Concerning Disposal of Residual Tank Wastes in Tanks 18 and 19 at the Savannah River Site, October 7, 2005.
2. National Defense Authorization Act, Section 3116 Implementation, presentation to the Waste Management Committee by Doug Hintze (DOE-SR), January 11, 2005.
3. Draft Section 3116 Determination for Closure of Tank 19 and Tank 18 at the Savannah River Site, September 30, 2005
4. Citizens Advisory Board Recommendation No. 15 (adopted January 23, 1996), "High Level Waste Tank Farm Closure".
5. Citizens Advisory Board Recommendation No. 43 (adopted July 22, 1997), "High Level Waste 1F and 1HEvaporators".
6. Citizens Advisory Board Recommendation No. 78 (adopted January 26, 1999), "High Level Waste Tank Closure Environmental Impact Statement".
7. Citizens Advisory Board Recommendation No. 88 (adopted May 25, 1999), "HLW Tank Closure EIS-Motion 2".
8. Citizens Advisory Board Recommendation No. 105 (adopted November 16, 1999), "Tank 19 Closure".
9. Citizens Advisory Board Recommendation No. 138 (adopted April 1, 2001), "HLW Tank Closure Draft Environmental Impact Statement."
10. Citizens Advisory Board Recommendation No. 162 (adopted May 20, 2003), "HLW Accelerated Sludge Removal."
11. Citizens Advisory Board Recommendation No. 173 (adopted September 23, 2003), "HLW Classification."
12. Citizens Advisory Board Recommendation No. 181 (adopted January 27, 2004), "HLW Tank Longevity versus Expected Lifetime."
13. Citizens Advisory Board Recommendation No. 186 (adopted March 24, 2004), "HLW Proposal."
14. Citizens Advisory Board Recommendation No. 204 (adopted January 25, 2005), "3116 Implementation - HLW Tanks."
15. Citizens Advisory Board Recommendation No. 220 (adopted September 28, 2005), "National Academy of Sciences Interim Report – Tank Waste."

### **Agency Responses**

[Department of Energy-SR](#)