

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 1, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
J. J. McConnell, Deputy Technical Director
FROM: R. T. Davis/ T. D. Burns
SUBJECT: SRS Report for Week Ending March 1, 2002

Unreviewed Safety Question Process: Staff member Don Nichols was on site Thursday to review the Unreviewed Safety Question (USQ) processes. The staff identified several areas for improvement regarding the potential for both improper screening of proposed activities and embedding of controls into proposed activities. The site acknowledged the areas for improvement and committed to address them in the next update to the site-level USQ procedure.

Safety Rule Compliance Models Review: In support of an EM-1 initiative to identify cost-effective approaches for compliance with the 10 CFR 830 Nuclear Safety Rule, Mr. Paul Gubanc was on-site to discuss, with both WSRC and DOE-SR personnel, various site programs and processes supporting safety basis development. Several SRS safety basis initiatives were identified that could have generic applicability across the complex.

First, SRS uses Authorization Basis Steering Committees, which are comprised of both contractor and DOE personnel, to resolve safety basis issues common to all site facilities thereby promoting consistency and avoiding redundant effort. SRS personnel also use Safety Basis Strategies that allow DOE and the contractor to reach agreement, prior to the expenditure of significant analysis effort, on the scope and approach to be used in the development of a safety basis. Finally, the SRS Backfit Analyses process is a useful tool for systematically determining when, and with what compensatory measures, existing equipment may be credited for performing a safety function.

Tank 37 Activities: Salt removal from Tank 37 is being pursued to support using this tank to replace Tank 30 as the drop tank for the 3H Evaporator. The final equipment modification to Tank 37 was completed with the installation of the telescoping transfer jet (TTJ) on Wednesday. Upon verification that the TTJ jumper connections were leak tight, the first of seven transfers from Tank 37 commenced on Friday. The first two transfers will send supernate to the 3H feed tank (Tank 32) in an attempt to cool the feed below temperature limits for 3H operation. The remaining five transfers will send salt to Tank 35. Removal of the supernate is expected to be complete by the end of next week, and completion of salt removal is expected in late July 2002. Tank 37 is scheduled to be ready for service as the 3H drop tank by August 31, 2002.

A salt well process is to be used for salt removal from Tank 37 which consists of four steps; dissolution of a salt well in the layer of salt to be removed, removal of the interstitial liquid in that layer, dissolution of the remaining salt-cake layer with inhibited water, and removal of the dissolved layer of salt-cake. Experience gained with this process during Tank 37 salt removal will be critical in supporting the low-Curie salt disposition program.