

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 25, 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 October 25, 2002

HLW Operational Flexibility: A Justification for Continued Operations (JCO) providing new criteria for qualifying waste-feed for the 2F and 3H HLW evaporators has been approved by DOE-SR. This JCO addresses implementation problems associated with the previous revisions submitted to DOE-SR (site rep weekly 6/7/02). Based on improved understanding of the thermodynamics and chemistry of scale formation and recent operational experience, the JCO relaxes the previous strategy of strict segregation of high aluminum and high silicon waste streams. The ability to process a wider range of waste feeds under this JCO will enhance the operational flexibility of the 2F and 3H evaporators.

Tank 37 Activities: Efforts to bring Tank 37 on-line as the drop tank for the 3H evaporator continue. The recent approval of the feed qualification JCO has allowed supernate in Tank 35 to be transferred into the 3H evaporator system (Tanks 30 and 32) to make room for dissolved salt from Tank 37 (site rep weekly 9/6/02). Approximately 350,000 gallons of Tank 35 supernate has been transferred to Tank 32 this week. WSRC plans to complete supernate removal from Tank 35 over the weekend by sending an additional 300,000 gallons to Tank 30. Transfer of the first of five batches of dissolved salt from Tank 37 to Tank 35 is expected to commence late next week. The current schedule indicates completion of the Tank 37 project in mid-December; however, salt dissolution efficiency is still uncertain and may result in significant delays.

H-Canyon: In late September, WSRC began a five week outage at H-Canyon. Major activities during this outage include a distributed control system modification, cooling water system repairs, new hot crane upgrades and tie-in to the Highly Enriched Uranium (HEU) blend-grade tank in HA-Line (tank E4-2). After this outage is complete, WSRC will begin producing blend-grade HEU and transferring it to tank E4-2 for storage. WSRC began the Readiness Assessment (RA) for this activity two weeks ago. However, WSRC suspended the RA review of procedures and conduct of operations because of problems with the procedures (site rep weekly 10/11/02). Subsequently, procedures were revised and integrated walk downs were performed to validate procedure adequacy. This week, WSRC completed the RA for this activity. Several pre-start issues were identified, including the need to implement the foreign material exclusion program into procedures. The program helps ensure the resulting solution will meet purity requirements.

Last week, WSRC declared an Unreviewed Safety Question for the red-oil vent issue identified earlier this month (site rep weekly 10/11/02). WSRC has evaluated H-Canyon process operations and identified all tanks that require additional vent area. Based on this evaluation, red-oil vents have been added to six additional H-Canyon tanks.