

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 16, 2001

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers / R. T. Davis
SUBJECT: SRS Report for Week Ending March 16, 2001

HLW Tank 6: On Tuesday, WSRC provided DOE with their recommendation for addressing the leak sites identified in tank 6. WSRC recommends transferring approximately 40,000 gallons of waste to reduce tank level beneath the top 3 leak sites (waste would remain above the other 3 leak sites). An enhanced monitoring and inspection program would be implemented to ensure the tank remains stable (i.e., no significant waste release to the annulus). WSRC believes they can safely manage waste above crack sites because of their monitoring program, transfer readiness, annulus ventilation systems, self-sealing nature of the leaks, and analytical analysis of the cracks. Other type I tanks (5 and 8) would also be used to receive and store lower curie waste material. WSRC believes this plan safely manages the risk of storage in these tanks and limits the potential for delays in waste immobilization at DWPF. Transfer of additional waste out of tank 6 would likely impact DWPF operations because of inadequate tank space.

HLW Tank 5 Rewet: On Thursday, WSRC began rewetting the 10 inches of dry sludge contained in tank 5, which is a Type I F-Area tank with a similar history to tank 6. Tank 6 was rewet in 1996. This activity is consistent with the WSRC plan to reuse old-style tanks 5, 6, and 8 to store DWPF recycle waste and a part of the sludge wash water (site rep weekly 10/20/00). Approximately 28,000 gallons of inhibited water is being added to bring the level to about 21 inches. WSRC visually inspected about 90% of the tank wall with no issues identified. Annulus to primary transfer systems have been verified to be operational. Next week, WSRC will perform an annulus inspection to verify that waste is not being released to the annulus. Provided these inspections are positive, WSRC plans to transfer about 100,000 gallons of waste from tank 22 to tank 5 late next week. After each transfer into tank 5, WSRC plans to wait 30 days to verify that no waste is released to the annulus.

Readiness Assessment (RA) Process: Based on a number of procedure issues observed during RAs during the last two years, the site representatives suggested that WSRC consider reviewing the procedure development and validation process to identify appropriate improvements (site rep weekly 1/19/01). This week, WSRC completed this review and forwarded their findings to DOE. Overall, WSRC concluded that the RA process is programmatically sound with no systemic weaknesses. For procedure development and validation, the task team identified “good practices” and recommends development of a lessons learned notification to distribute this information. The team also recommends that WSRC consider incorporating this information into the contractor assessment manual and conduct periodic working group meetings to share best practices.

Outer 3013 Can Welder: Board staff member Yeniscavich was on-site this week to observe an outside expert panel review of the 3013 outer can welder qualification program. Development of this weld process is critical to both Hanford and SRS plutonium stabilization and packaging programs (site rep weeklies 2/9/01, 2/16/01). The expert panel concluded that the proposed TIG weld process developed by WSRC is capable of consistently producing acceptable closure welds. The panel also suggested improvements for the process (e.g., higher magnification post weld inspection and minimum can sulfur content limits).