

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 22, 2001

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers / R. T. Davis
SUBJECT: SRS Report for Week Ending June 22, 2001

HLW Tank 5: WSRC continues to investigate leak sites in the primary wall of Tank 5 (site rep weekly 6/15/01). Currently, eleven leak sites have been identified with the two lowest leak sites at the 31" level (approximately 92" below the waste level). To reduce the tank level beneath the leak sites, WSRC will need to transfer approximately 250,000 gallons of waste. WSRC had planned to transfer this waste to Tank 8; however, this size transfer would increase the level in Tank 8 to approximately 220", which is significantly higher than recent waste levels. Tank 8 has a similar history to Tanks 5 and 6 (e.g., Type I tank, dry sludge tank) and may be susceptible to similar problems. WSRC is now pursuing transfer of this material to Tank 46, which is a Type III tank in the 2F evaporator system. However, Tank 5 contains higher silicate material from DWPF that contributed to the solids issues with the 2H evaporator. WSRC has sampled the Tank 5 material and will model the mixture of Tanks 5 and 46 to determine if the waste can be processed through the 2F evaporator without problems. Transfer of waste out of Tank 5 will likely not occur until late next week at the earliest.

Recommendation 2000-2: This week, DOE performed a phase II pilot assessment of the H-Canyon confinement ventilation system. Staff member Zavadoski and Volgenau (outside expert) were on-site to observe this assessment. In addition to completing a phase II assessment, the team also evaluated the effectiveness of the criteria and guidance for conduct of a phase II assessment. The team concluded that the criteria and guidance were generally effective; however, several changes were recommended to enhance the process. The phase II assessment identified no issues that would bring into question the operability of the H-Canyon confinement ventilation system. Several opportunities for improvement were identified. The staff noted that the pilot team preparations could be improved to help eliminate initial confusion with regard to the assessment process and system details. In addition, there appeared to be several conditions that could potentially impact confinement system operability that were not thoroughly investigated by the team (e.g., pressure switch replacement and issues with the older sand filter).

H-Canyon: Last Saturday, H-Tank Farm (HTF) received waste from H-Canyon without performing appropriate Technical Safety Requirements (TSRs). H-Canyon routinely makes transfers to both HTF and the Effluent Treatment Facility (ETF). In this case, the H-Canyon operator mistakenly contacted an ETF operator instead of the appropriate HTF operator. Several conduct of operations failures led to this occurrence. First, the operator failed to follow the procedure that required specific information to be communicated to the HTF operator and required that communication be maintained during the transfer. Second, site requirements for clear communications do not appear to have been used. Finally, the operator was not qualified and was required to be under close supervision of the trainer/evaluator. However, the first line supervisor was the trainer and was not closely evaluating the trainee. Conduct of operations issues have led to several inadvertent transfers across the site over the last few years.