DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 5, 2003

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending September 5, 2003

Spent Nuclear Fuel Project (SNFP): In discussions with Fluor Hanford (FH), it does not appear that SNFP or other FH organizations have developed a systematic plan to proactively determine the extent of problems with the SNFP authorization basis. Instead most actions identified are reactive reviews of previously identified problems or compensatory measures to ensure new engineering and nuclear safety development work is performed properly. DOE-Richland, however, is developing a team to assess ongoing operations at SNFP and other FH projects to determine if the configuration management and authorization basis problems identified at K-Basins are more widespread. This effort is expected to be conducted over the next several weeks. (I-C)

Tank Farms: Except for a few days, there was no back-up train available for the AW Farm Primary Exhauster between December 2001 and mid-August 2003. This resulted in an unusual occurrence being declared in late July 2003 when a loose belt shut down the operating train. A root cause evaluation of this event concluded the root cause was inadequate attention to emerging problems, with the lack of an established spare parts program (especially for those not being manufactured anymore) as a contributing cause. The Site Rep and Chief Engineer expressed concerns that the evaluation and proposed corrective actions did not examine how weaknesses in the system engineering program may have contributed to this problem. Since one train was operating and there were not repeated failures (i.e., the train stayed shutdown), the system trending did not highlight the longstanding degradation of this vital safety system. (I-C)

An electrician dropped a steel cover plate into a cable trench, striking a cable containing 480 volt conductors and a ground cable, cutting through some insulation. This resulted in an electrical arc which tripped a breaker, shutting down AP Farm primary tank and annulus ventilation systems, and smoke, which set off the fire alarm. Although the cover plate was labeled as a lifting hazard and weighed 39 lbs above the Job Safety Analysis limit, the worker chose to lift the plate by hand instead of taking advantage of provisions for installing eye-bolts. Furthermore, if the plate had not contacted the ground wire, the plate could have remained energized by the 480 V conductors. (I-C)

Waste Treatment Plant (WTP): The Site Rep observed cores being drilled in the High-Level Waste Facility where subsidence cracking was suspected. While the cracks clearly extended from the surface to the rebar, there appeared to be good bonding of the concrete to the rebar. (I-C)

cc: Board Members