

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 17, 2001

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending August 17, 2001

Mr. D. Boyd was onsite observing the DOE headquarters fire protection program evaluation.

Spent Nuclear Fuel Project (SNFP): K-West Basin experienced an electrical short circuit in a switch gear cabinet. This caused extensive damage to equipment in the cabinet resulting in a loss of production for several days while repairs were made. The damage included major melting of the three-phase power copper bus-bars at the point where they fit into a lower insulator as well as severe charring and melting of the insulator. In addition, some melting and charring of wires and wire connections occurred. The short occurred while resetting breakers which were believed to have been tripped by a lightning strike. This determination was based on a thunder storm identified elsewhere on the site within a hour of the breakers tripping and the lack of other damage during a visual inspection. This is another example of the project not performing a complete evaluation of equipment failure before returning the equipment to use, in this case resulting in serious consequences. (I-C)

Tank Farms: The Site Reps observed the contractor Operational Readiness Review for restoring the capability to receive additional high-level waste into Tank SY-101. This ORR is a bit unusual since not only are no transfers scheduled to occur in the near term, but the transfer being demonstrated is for a tank which has already undergone saltwell pumping. The team is reviewing issues with CH2M Hill Hanford Group's declaration of readiness, potential open punch list items that were not identified, drill performance, procedure use, and quality control of safety equipment. (III-A)

Plutonium Finishing Plant (PFP): PFP initiated their Standard Startup Review for mixing lean plutonium solutions with absorbent and there is talk of starting this activity soon. However, the Department of Energy-Richland (DOE-RL) has not even recommended this strategy shift to DOE-Headquarters yet, much less had the Secretary of Energy formally request a change to their Recommendation 2000-1 Implementation Plan milestone. The Site Rep warned DOE-RL again that any attempt by PFP to implement this new disposition path prior to receiving Board approval for an Implementation Plan modification would be viewed unfavorably. (III-A)

Fire Protection Review: The DOE headquarters fire protection program evaluation concluded this week. The major finding of the review involve questions whether the integrity of the water supply system to PFP is sufficient to meet design basis fire requirements. Another major finding is that the Office of River Protection has not established a program to ensure effective oversight of fire safety. In addition, the automated job hazards analysis process was not properly identifying fire hazards and subsequently not identifying appropriate controls for some Fluor Hanford facilities. (I-C)

cc: Board Members