

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 27, 2002

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending December 27, 2002

Spent Nuclear Fuel Project (SNFP): Transfer of fuel from K-East to K-West was halted for several days while repairs were made to the Fuel Transfer System (FTS) lift table. The lift table is used to move the fuel transfer cask from the bottom of the basin to the straddle carrier which moves it to an overpack. The vibrations resulting from the rotation of the approximately 20 foot long jackscrew, used to raise and lower the lift table, caused equipment in the screw drive housing to loosen and rotate. This housing rotation sheared the air supply line to the pneumatic brakes for the jackscrew. Metal shavings were also observed around the lift table bearing nuts that move along the jackscrews. The SNFP is implementing short term corrective actions to bring the equipment back into service as well as the need for longer term design modifications. The project is also evaluating whether the metal shavings are a result of initial component wear-in or an indication of a design problem. (III-A)

Tank Farms: The Site Rep met with Office of River Protection (ORP) and CH2M Hill Hanford Group managers to discuss staff concerns with how controls were being established to protect facility workers in the new Documented Safety Analysis. ORP intends to revise their expectations to address the staff's concerns with the identification and implementation of engineered and administrative controls. (I-C)

In order to maximize space in double shell tanks, CHG is looking at the possibility of increasing the tank fill height and waste specific gravity limits. This could negatively impact the time to reach the lower flammability limit and the potential to retain flammable gases in the waste. (I-C)

Plutonium Finishing Plant (PFP): Mixed oxide residues are now being repacked into pipe overpack containers. The bagless transfer system has had an increasing tendency to make welds which are too narrow in places, which makes it hard if not impossible to properly cut the weld. Engineers are working on a solution to this problem. Neutron moderation has completed testing and will be used as a supplemental moisture measurement method for sealed 3013 cans. (III-A)

Waste Treatment Plant (WTP): ORP is thinking about granting Bechtel National Inc. (BNI) authority to make changes to the facility and associated nuclear safety controls during construction and cold testing provided that BNI performs a safety evaluation that shows that the changes comply with all laws, regulations, and the contract and provide "adequate safety." An annual comprehensive update would be provided to ORP. ORP would still approve changes to the Safety Requirements Document (SRD) safety criteria. BNI would also have to notify ORP of potentially significant design changes, if they were changing SRD implementing codes and standards, or if BNI made a limited case-by-case deviation to these codes and standards. (I-C)

cc: Board Members