

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 23, 1997

TO: G. W. Cunningham, Technical Director
FROM: P.F. Gubanc & D.G. Ogg, Hanford Site Representatives
SUBJECT: Activity Report for Week Ending May 23, 1997

A. Plutonium Reclamation Facility (PRF) Explosion Recovery: Babcock and Wilcox Hanford Co. (BWHC) management continues efforts to confirm safe conditions and restore building services to the PRF. The investigation team, led by DOE-RL, accompanied by BWHC personnel, entered the facility Friday, May 16, and again Wednesday, May 21. No imminent dangers were identified, however further inspections from outside the building indicate a tear in the roof that is also visible in a video taken from inside Room 40 (the site of the explosion) on May 21. The investigation team believes that the ventilation system continues to maintain a negative pressure in the building and that there is no air flow from Room 40 to the atmosphere. Radiological control technicians have verified no significant radiation levels or spread of contamination outside the building.

Evidence collected from several sources during the week confirms the investigation team's belief that the cause of the explosion was a mixture of hydroxylamine nitrate and nitric acid in tank A109 in Room 40 of PRF. It appears that the mixture was inadvertently allowed to concentrate by evaporation over the course of several years until unstable concentrations were reached. Preliminary reports from operators at other facilities at Hanford indicate that no similar mixtures of chemicals exist on site.

B. Investigation of Worker Injuries at Canister Storage Building (CSB): Investigation teams led by the contractor and by DOE-RL finished their interviews and field work this week and are preparing investigation reports. Duke Engineering Services, Hanford (DESH) management expects that CSB construction may restart next week.

C. TWRS FY97 Budget Difficulties: TWRS' current FY97 budget is short by approximately \$19 million (out of \$336M). Due to significant previous cuts to the TWRS budget, additional cuts within TWRS could significantly effect DNFSB milestones. Per our discussions this week:

1. DOE-RL insists that "there is no more money" and TWRS must live within its budget.
2. LMHC has found only \$9.5M in TWRS reductions which avoid DNFSB milestones. Some of these reductions, however, defer work which supports post-1997 commitments.
3. DOE budget shifts to Brookhaven National Lab may further exacerbate the shortage.

Additional detail is being obtained and will be provided in support of the Board's June 4-5 visit.

D. External Contacts: The Oregon Department of Energy has invited the Site Representatives to address the Oregon Hanford Waste Board. The Oregon Board is composed of twenty Oregon State citizen, state and tribal government members. Our briefing is scheduled for June 25.

cc: Board Members