

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 16, 1997

**TO:** G. W. Cunningham, Technical Director  
**FROM:** P.F. Gubanc & D.G. Ogg, Hanford Site Representatives  
**SUBJECT:** Activity Report for Week Ending May 16, 1997

A. Explosion at Plutonium Finishing Plant (PFP): On May 14, just before 8 p.m., a chemical feed tank in the PFP's Plutonium Reclamation Facility (PRF) exploded. No one was injured nor was there any release of radioactive material. Mr. Ogg responded to the DOE Emergency Operations Center (EOC) and continues to follow recovery actions. DOE-RL and Babcock and Wilcox Hanford Co. convened an investigation team that plans to re-enter the facility this afternoon (May 16). Details are being forwarded to DNFSB-HQ (i.e., Ray Daniels) as they become available. Mr. Gubanc is following up with DOE-RL on the delay in notifying the DNFSB Site Representatives. (Gubanc was first notified at 3:30 a.m. on May 15).

B. Investigation of Worker Injuries at Canister Storage Building (CSB): Investigation teams established by DOE-RL and Fluor Daniel/Duke continued root cause analyses and interviews related to the construction injuries at the CSB last week. Pending conclusion of the contractor investigation (possibly next week), construction activities at the CSB remain on hold.

C. Review of Construction Management: This week, Mr. Gubanc accompanied staff members Arcaro, Barton, Blackman and Napolitano in a scoping assessment of construction and configuration management. In general, the review corroborated the Site Representatives' assessment documented in our February 24, 1997, report. Observations include:

1. Neither DOE-RL nor Fluor Daniel Hanford (FDH) possess an engineering organization (e.g., civil, mechanical, electrical) to assist in the technical review of construction design documents. As a result, DOE and FDH approvals of Functional Design Criteria and Final Acceptance are based on whether certain activities were completed (e.g., were design codes specified) but not necessarily the quality or adequacy of those activities (e.g., were the *appropriate* design codes specified).
2. FDH responses to three separate DOE-RL requests for action have been neither timely nor complete. Additionally, despite having recognized these concerns, DOE-RL has demanded no compensatory measures in the interim. The specific issues concern inspection independence, work completion verification and the dedication of commercial- grade items for nuclear applications.
3. FDH and Fluor Daniel Northwest (FDNW) both report to the same Fluor Daniel corporate vice president. Each of FDH's major subcontractors (Duke, Rust, etc.) are required to utilize the architect engineer/construction management (AE/CM) services of FDNW unless specifically approved otherwise by FDH. This arrangement places unique influences on both FDH and the subcontractors.

cc: Board Members