

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 17, 1997

**TO:** G. W. Cunningham, Technical Director  
**FROM:** P.F. Gubanc & D.G. Ogg, Hanford Site Representatives  
**SUBJECT:** Activity Report for Week Ending January 17, 1997

A. DOE Intent to Not Fulfill DNFSB 93-5 Commitments: Last week, DOE-RL publicly announced that it had insufficient budget in fiscal year 1997 to support the DNFSB Recommendation 93-5 (Tank Characterization) Implementation Plan. Based on discussions with DOE-HQ, DOE-RL, Fluor Daniel (FDH) and Lockheed Martin (LMHC), the following is clear:

**1. Unless funding is identified, one of four tank sampling truck crews will be laid off on January 22, 1997:** LMHC is preparing to issue 60-day lay off notices to one sampling truck crew on January 22. The only means of avoiding this action is for DOE to provide additional funds or direct LMHC to cut other existing workscope (and associated staff) and reallocate the budget to tank characterization.

**2. DOE-EM is neglecting its responsibility to review and approve the Tank Farms FSAR:** On January 14 the two DOE-EM staff members responsible for monitoring the tank farms FSAR acknowledged that they have no resources or plan to review and approve the FSAR. DOE-EM is "betting on the come" to delegate this approval authority to DOE- RL. DOE-RL also has no plans or resources to perform this review and approval.

*Board member discussions with DOE-HQ and DOE-RL management are necessary if the above situations are to be altered.*

B. Worker Burned by 480 Volt Arc: On January 11, an electrician burned his hand when the supposedly deenergized 480V cable he was installing arced over. During the critique (attended by Mr. Gubanc), it was revealed that the electrical drawings used for the tagout were drawn incorrectly. In addition, the site utility contractor (Dyncorp) acknowledged that site electrical utility drawings are not well controlled or maintained. (The work was being performed to recover from a power outage which affected several facilities, one nuclear, in the 300 area.)

C. Plutonium Finishing Plant (PFP): On December 16, a PFP process operator was observed entering and exiting a contamination area without protective clothing or an exit survey. During the critique, the operator first denied his actions and then declared he wasn't sure since he had the flu. The operator was given three days off without pay. During late December, PFP also had a string of criticality infractions. Both of these events represent recurring problems at PFP. This week, DOE-RL started pressing hard on FDH and the PFP operating contractor, Babcock & Wilcox (BWHC), for stronger management actions than have been offered to date. We agree with DOE-RL's actions and will continue to monitor their efforts at PFP.

D. N-Basin Crane Load Drop: On January 13, during the backshift, a 10-ton waste container (called a "monolith") was dropped approximately one foot to the N-basin floor. The monolith contains grouted high exposure rate hardware and was being lifted from the basin by the 60-ton crane when the crane cables began shuddering. The crane operator immediately began lowering the monolith which then rotated 45 to 60 degrees and fell with an audible thud. Subsequent inspection indicated damage to the lifting trunnions on the monolith but no damage to the crane lifting bail or hooks. Basin water level appears steady. BHI reported the drop as an off-normal event on January 15, and suspended crane lifting activity pending further investigation. This is the same workforce that in 1996 broke two pieces of N-basin equipment by pulling to failure.

E. Canister Storage Building (CSB) Design and Construction: On January 16, Messrs. Ogg and Gubanc toured the CSB with the DOE-RL construction project manager. Mowat is proceeding with construction on schedule and plans to start concrete placement for the vault one deck on January 22. During the tour, DOE-RL pointed out physical changes in the MCO receiving pit that were made because of design errors related to improper load calculations. He also pointed out that the seven Hot Conditioning System cells, now ready for concrete placement, are not aligned properly for Material Handling Machine (MHM) access. The rebar and form work for these cells may have to be removed and reinstalled. Because of these problems, Duke has commissioned an independent review of the CSB design and inspection processes. The review is in progress now and should be complete prior to concrete placement on the vault one deck of the CSB.

F. REDOX Tour: On January 16, Mr. Ogg toured the REDOX Crane Maintenance Platform (CMP) with the DOE-RL facility representative during BHI work to inspect, reenergize and test the REDOX canyon crane. If this work is successful, BHI plans to use the crane to replace the cell cover blocks for the open D-cell in the canyon. This action will mitigate the potential consequences of a seismic event accompanied by REDOX roof or wall failure. The CMP was found to be very dusty and in need of extensive housekeeping. The BHI work force was observed to take adequate radiological and safety precautions for the work.

G. Tank Farm "Sinkholes": On January 16, Mr. Gubanc visited U- and T- tank farms to observe recently reported sinkholes in those farms. Most of the holes are approximately one foot deep and vary in diameter from two to twelve feet. Several of the holes are attributable to abandoned, underground timbers and are of little concern to the tanks. The largest sinkhole, however, is above tank U-110 and is centered on a riser installed after initial construction. In-tank video obtained last week reveals no obvious structural problems with the tank dome. LMHC continues to investigate.

cc:

Board Members