

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 28, 2005

TO: K. Fortenberry, Technical Director
FROM: D. Grover, W. Linzau, and R. Quirk, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending October 28, 2005

This is Mr. David Grover's last week on-site and he will be assuming new duties at the DNFSB offices in Washington, DC. Also, Board staff member, J. Troan, was on-site this week.

Plutonium Finishing Plant (PFP): The DNFSB staff walked down various buildings at the PFP with the facility representatives and discussed the work that will need to be completed to support the extended life of the facilities. The facility representatives expressed concerns with the roof of building 234-5Z as well as the maintenance of its obsolete criticality alarm and the ventilation control systems. PFP management stated that they plan to refurbish existing equipment to maintain the criticality alarm system and are still evaluating other systems.

A break occurred in a sanitary water service pipe that caused a loss of fire suppression water to portions of PFP. The response actions appeared appropriate and included identifying the source of the water, entering the limiting conditions for operations for loss of fire suppression, informing the fire department of the situation, isolating the leak, and ensuring the un-isolated sections of the loop were still operable. The break occurred in an abandoned line that branches off the eight-inch water main. It is believed that the break in the line was caused by the weight of an unloaded crane that was parked on top of the leak location. There were no surface indications or marking of an underground water line. The project is evaluating how to prevent similar occurrences because heavy vehicles are frequently parked adjacent to the road inside the PFP perimeter.

C-200 Tanks Waste Removal: Vacuum retrieval of waste from tank C-201 began this week. The design used for the C-203 and C-202 retrievals was modified to eliminate the water and air lines intended to assist in the waste removal because of a contamination event discussed in the Hanford Activity Report, dated 9/23/2005. The quantity of radioactive material on the clothing contaminated during that evolution was monitored this week, and CH2MHill Hanford Group concluded that the actual radiation level experienced during that event was most likely less than 4 rem/hr, not the 40 rem/hr initially reported. With the lower value used as an input to the dose reconstruction, the actual shallow dose experienced by the worker would be approximately 1 rem. The final dose reconstruction report is expected to be issued in two weeks.

Tank Farm Ventilation: Problems with the ventilation systems used to limit flammable gases in the various tank farms continued this week. The A train of SY tank ventilation has been out of service since January due to maintenance problems. After a planned electrical outage last week, the B train was returned to service but failed twice this week. Additionally, the AY/AZ farm ventilation system has been out of service while upgrades to the associated condensate collections system are implemented.

cc: Board Members