

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 8, 2006

TO: K. Fortenberry, Technical Director
FROM: R. Quirk and W. Linzau, Hanford Site Representatives
SUBJECT: Activity Report for the Week Ending September 8, 2006

Mr. Linzau was out of the office this week.

Tank Farms: A leak of tank waste inside a pump pit for double-shell tank AP-103 occurred shortly after starting the transfer of concentrated waste from the 242-A evaporator to AP-103. This resulted in the activation of a safety-significant leak detector and the subsequent stopping of the transfer. The leak was caused by a loose locknut on the slurry distributor for AP-103. The preparations for the transfer did not include ensuring that the locknut on the distributor was tight even though the slurry distributors had not been used for a number of years. The transfer to AP-103 recommenced approximately ten hours later after tightening the locknut with an installed reach-rod and ensuring that the line was no longer leaking. The transfer was switched to tank AP-108 on Thursday after ensuring that the locknut for AP-108 was tight. The evaporator campaign was completed on Friday. Approximately 600,000 gallons of waste was removed from tank AW-102 and approximately 300,000 gallons of concentrated waste was transferred to tanks AP-103 and -108. The evaporator campaign was generally a success; weaknesses included an inadequate procedure and the delayed notification of the waste leak to DOE management.

K Basins Closure (KBC): The Contractor Operational Readiness Review (CORR) for the Hose-in-Hose Transfer System commenced this week. A substantial team of Richland Field Office (RL) personnel closely monitored the activities of the CORR team, KBC project personnel, and the facility representatives. Strengths noted by the CORR team included excellent three-way communications by operators and superior labeling of components in the field. One of the preliminary observations by the CORR team was the failure of supervisory personnel to follow the specified immediate actions of an alarm response procedure (AR) for an actual high basin water level in KW. Operators were following the specified immediate actions in the AR which included ensuring the sources of water to the basin were isolated, but operations management would not allow the prompt cessation of the transfer of water from KE into KW. There was no immediate safety issue with the relatively small flow into KW, but not allowing verbatim compliance with an issued procedure sent a mixed signal to the operators. KBC management said that the ARs would probably be revised to eliminate unnecessary immediate actions and permit the shift managers to use their professional judgment when responding to alarms.

The site rep observed sludge vacuuming and staging of debris for removal in KE. Comments related to questionable radiological controls practices were provided to KBC management who initiated appropriate corrective actions.

Plutonium Finishing Plant (PFP): Two events in 241-Z, entering a tank before completing the monitoring of the building atmosphere and the fall of a pipe support, are similar to other recent events at PFP. RL management and PFP management discussed the inadequate corrective actions for the prior events.