

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 16, 2004

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending July 16, 2004

Industrial Safety: While performing work to dismantle and move an excess trailer, a subcontractor employee fell and died. Preliminary information indicates that fall protection and ladder safety requirements may not have been in use. The Department of Energy (DOE) has launched a Type A Accident Investigation. At the Waste Treatment Plant construction site, a truck and flatbed trailer transporting a ~50,000 lb. pedestal crane flipped on its side, spilling five counterweights weighing 16,000 lbs. as far away as 30 feet. Luckily, neither the driver nor any bystanders were injured. A slight slope in the dirt road may be partly to blame. (IV)

Waste Treatment Plant (WTP): The Site Rep met with representatives of both DOE offices, the Hanford Fire Department (HFD), and other Fluor Hanford (FH) personnel to discuss the A6 Substation Switchgear Building's fire suppression system. It is FH's position that the drained sprinkler system was not inoperable, but in manual mode. Following an alarm of the smoke detectors, HFD responders would turn the water supply back on so that the sprinklers could activate. FH intends to change the fire suppression system to a pre-action system which would allow employees working on the electrical systems to evacuate the facility prior to the sprinklers activating. This should address the concern discussed in recent weekly reports. However, FH intends to keep the system in manual mode until modifications are completed in October rather than keep the system active and use a lock out/tag out program to protect workers. (III)

Tank Farms: The cross-site transfer was shut down for much of the week. While investigating a Master Pump Shutdown alarm in the encasement drain (later found not to be due to a leak), it was discovered that the encasement leak detectors for approximately 1/3 of the cross-site line were not functional due to an electrical problem. These leak detectors are defense-in-depth controls that are required by the Environmental Management safety management program. Technical Safety Requirement leak detection controls would have still detected a leak, but maybe not as fast. Repairs are ongoing. (III)

CH2M HILL Hanford Group (CHG) held a third expert panel workshop on double shell tank chemistry optimization this week. The panel members believed that CHG did not have enough corrosion data to support proposals to allow transient out-of-specification chemistry conditions or permanently modify existing corrosion controls. Recommendations for improving the technical basis were provided, but the lack of vintage steel samples (which corrode differently than recently manufactured steels) makes it hard to generate relevant data. A proposal to sample tank sludge following caustic additions only after the mixing model predicts that measurable changes have occurred (versus after 12-18 months) could extend the taking of cores by as much as three years for tanks that have very slow natural mixing. (II)

cc: Board members