

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 28, 2005

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending January 28, 2005

K Basin Closure Project (KBC): The staff has reviewed the Fluor Hanford (FH) contract with British Nuclear Fuels Ltd. for processing the sludge and identified a concern with the flow down of safety requirements into the contract. FH independent oversight has also identified similar concerns. The project has stated that they will be forming review teams to evaluate and correct this situation.

Plutonium Finishing Plant (PFP): Outside Expert Mr. Boyd was onsite observing glovebox decontamination activities at PFP. One crew was performing decontamination activities for the first time while another crew had performed the task several times. Lessons Learned between the operating crews did not appear to be effectively communicated. The pre job briefing for decontamination in the 232-Z building was poorly conducted and was suspended while operator questions about whether the glovebox conditions met the operating restrictions in the procedure were resolved. Despite this being the first time the process was performed by the work group, line management was not present during the performance of the procedure. Also, the spraying of the chemicals in the box shorted out the temporary lighting inside the glovebox. This occurred despite requirements that the glovebox be electrically isolated and the job hazards analysis identifying no electrical hazards.

Tank Farms: The Contact-Handled Transuranic Mixed Waste Facility (CH-TRUM) will be used for drying tank waste and packaging it in drums. A preliminary analysis indicates that if the dryer was breached and a batch of dried waste was dropped from its elevated location, it could result in unmitigated, offsite, radiological consequences in the rem range. As a result, the contractor is seriously considering the identification of safety class controls. Controls being considered include the dryer itself, valves, vacuum interlocks, and passive HEPA filters, but the active ventilation system may only be a defense-in-depth control. The Site Rep believes that the proposed control strategy needs to be reviewed in light of Recommendation 2004-2 and taking into account the somewhat unique aspects of this facility's design. The facility's equipment is located in a number of interconnected sea/land containers that are stacked both vertically and horizontally in order to allow easy transport of the CH-TRUM facility between farms.

Retrieval of waste from tank S-102 continued to be unsuccessful despite the use of shims to raise the pump inlet and operating at increased speeds. A new variable height pump is being fabricated that will be used to remove the more easily to dissolve "white" saltcake on top first. The current pump suction screen is located near the tank bottom in the "black" saltcake, which has a mud-like consistency. The delay caused by designing, fabricating, installing, and testing a new pump will make it difficult to complete the retrieval of S-102 prior to the expiration of the SY-102 (the receiver tank) chemistry control Justification for Continued Operations.

cc: Board Members