

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 8, 1999

TO: G. W. Cunningham, Technical Director

FROM: R. Arcaro, Hanford Site Representative
M. Sautman Hanford Site Representative

SUBJ: Activity Report for the Week Ending October 8, 1999

A. Meeting with DOE-RL Manager: The Site Reps met with Keith Klein to discuss Board concerns with work planning and characterization in the 233-S Plutonium Concentration Facility as well as FY00 Recommendation 94-1 commitments. The meeting was productive and Mr. Klein was very interested in both topics. (3-A, 3-B)

B. Recommendation 94-1: Mr. Sautman observed the third processing run of the prototype vertical denitration calciner at the Plutonium Finishing Plant. This run went pretty smoothly except that the off-gas ceramic filter differential pressure (ΔP) was pegged high for much of the run. Periodic bursts of air and reducing the feed rate were not sufficient to lower the ΔP . Operators suspected that very fine oxide powder was the cause. While the procedure does not identify an upper ΔP limit, Mr. Sautman encouraged PFP personnel to try to fix the problem or, at a minimum, get a new gauge with a broader range so operators do not get in the habit of ignoring off-scale gages. (3-A)

C. Spent Nuclear Fuel Project: The Spent Nuclear Fuel Project retains approximately four weeks of contingency in meeting its commitment to begin fuel removal by November 2000. However, challenges to the schedule continue to emerge. These challenges are being aggressively pursued to minimize their impact on the overall schedule. Currently, insufficient time, staffing, and resources exist to accomplish the scheduled acceptance testing for the Cold Vacuum Drying Facility. As this activity is the critical path for the overall project, a potential for a day-to-day slip in the project schedule exists. A workshop is being held next week to identify the minimum amount of necessary testing and to develop a path forward that supports the project schedule. Mr. Arcaro will attend this workshop. (1-C)

D. Tank 101-SY: The Tank 101-SY Surface Level Rise Remediation Project is on track to begin a transfer of waste out of 101-SY by November 4, 1999. Readiness review activities, to be observed by the site reps, will occur over the next few weeks. Following the first transfer, DOE expects to begin back dilution of the waste in 101-SY. It is DOE's goal to ultimately remediate the tank so that it may be used for routine storage and retrieval of waste. In developing back dilution plans, the contractor has determined that a better understanding of the crust response to dilution and dissolution is needed. Of primary concern is whether the crust might sink thereby creating a relatively large solids layer at the bottom of the tank. Speculation is that this may contribute to a return to buoyant gas release conditions. (3-A)

cc: Board Members