

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 10, 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 September 10, 1999

A. Plutonium Finishing Plant: The prototype vertical denitration calciner in the PFP Plutonium Process Support Laboratory (PPSL) processed the first 4.6 liters of plutonium nitrate solution on September 8. There was insufficient plutonium oxide generated to warrant collecting in a product can, so the material was left in the calciner bed. An additional calciner run will occur next week. PPSL management expects to give higher priority to testing of the precipitation system rather than continued operation of the prototype calciner. However, the calciner provides an additional available stabilization process in the event the precipitation testing activities become idle. Mr. Arcaro stressed the need to maintain the readiness of the calciner and the personnel required to operate it for such a contingency. (III-A.1)

B. Tank 101-SY Level Rise: Mr. Arcaro and Mr. Sautman toured the SY Tank Farm and observed the work completed to date. The transfer pump has been installed in the tank, and manifold connections have been made in the pre-fabricated pump pit. Some electrical connections remain to be made, and the above ground transfer line must still be installed and connected. (III-A.2)

C. Spent Nuclear Fuel Project: The Primary Clean Machine (PCM) wash basket, on site for two weeks now, has not yet been installed. A failure of a relief valve in the water purification system required that that system be shut down. This system is required for any underwater work in the basin. DOE hopes to have the PCM wash basket installed next week. The PCM wash basket is the last major component to be installed in the Fuel Retrieval System. (I-A.3)

D. Inactive Miscellaneous Underground Storage Tanks (IMUSTs): Mr. Arcaro and Mr. Sautman attended a workshop held by Bechtel Hanford, Inc. (BHI) on the safety status of 7 of the 21 IMUSTs under BHI's purview. These 7 tanks were subject to an exhaustive historical record search to determine the contents of the tank using "best available information." The data provided as a result of this record search, combined with knowledge of past process flowsheets and current safety work performed by Lockheed Martin Hanford Company for the larger waste tanks, provide a convincing argument that these tanks are safe and do not require additional controls. Consistent with the work performed in accordance with Recommendation 93-5, Mr. Arcaro stressed the need to sample at least the most uncertain tanks to confirm the process used to come to this conclusion. (III-A.2)

cc: Board members