

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 30, 1999

**TO:** G. W. Cunningham, Technical Director

**FROM:** R. Arcaro, & D. G. Ogg, Hanford Site Representatives

**SUBJ:** Activity Report for the Week Ending April 30, 1999

A. Plutonium Finishing Plant (PFP): Babcock and Wilcox Hanford Company (BWHC) completed its first integrated resource-loaded schedule for plutonium stabilization activities at PFP. Mr. Arcaro discussed this path forward with the PFP Board of Directors (BOD) including the BWHC President, the DOE Division Director, and the Fluor Daniel Hanford Project Director responsible for PFP. The following issues were discussed: 1) The plan assumes that stabilized material will not be packaged into 3013 containers until 2005. The BOD stated that they understood the need to accelerate 3013 packaging, but has not yet determined the path forward for accommodating storage of 3013 containers at Hanford. 2) The plan shows that the stabilization of polycubes is being delayed 19 months. The BOD stated that because testing of polycubes at PNNL is not yet complete, the schedule may be revised. 3) The installation of three furnaces and the restoration of the cementation line appear to be stalled. These activities do not seem to be receiving the appropriate priority.

A combination BWHC and Lockheed Martin Hanford Company (LMHC) team vented tank Z-361 on April 29. Tank Z-361 has a significant amount of plutonium and was intentionally sealed, leading to the possibility that it may have developed a flammable atmosphere in the head space of the tank. The tank was found to have no pressure or flammable gas.

B. Spent Nuclear Fuel Project (SNFP): The recent work regarding cask drop accidents revealed that the wall-floor interface in the south load-out pit may be vulnerable in a drop scenario. As an extension of this work, SNFP personnel determined that a similar vulnerability exists in the basin as a whole. A positive Unreviewed Safety Question (USQ) was declared, and all lifting activities were suspended in the basins. A Justification for Continued Operations (JCO) is expected to be developed by April 30 that will allow limited lifts. Assuming the JCO is approved, near term work to install settler tanks and FRS equipment will not be impacted.

C. Tank Farms - 101-SY Level Rise: LMHC is preparing to deploy a stirring arm in tank 101-SY. It is hoped that the arm will partially disturb a 12-foot diameter section of the now solid crust and allow a controlled release of gas. After vertical insertion into the tank to a position beneath the crust, the bottom six feet of the arm below an elbow will be rotated up 90 degrees, then the whole mechanism will be rotated about its vertical axis while it is pulled through the crust. Mr. Arcaro observed the staging of the arm at a mock-up in preparation for testing and training on the device.

D. Readiness Assessment at 233-S: Mr. Arcaro observed the Readiness Assessment for the next series of activities to be performed in the deactivation of the 233-S facility. Findings are expected in the areas of authorization basis, training, procedures, and fire protection. Mr. Ogg had independently identified several issues in these areas and will continue to track their resolution.

cc: Board members