

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 23, 1999

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

**FROM:** R. Arcaro, Hanford Site Representative

**SUBJ:** Activity Report for the Week Ending July 23, 1999

The DNFSB Rocky Flats Site Representative, Mark Sautman, was on site this week to assist in a review of the Plutonium Finishing Plant.

A. Plutonium Finishing Plant (PFP): B&W Hanford Company (BWHC) will request that DOE-RL rescind the Unreviewed Safety Question (USQ) associated with opening cans of plutonium metal. The USQ originally addressed the issue of an energetic reaction that could occur when opening cans of metal that may have formed pyrophoric compounds of plutonium hydride and nitride. Data presented during a workshop in November 1998 (attended by the Board's outside expert, Joe Leary) suggested that while the reaction could certainly occur, it was not energetic enough to challenge the glovebox integrity nor overcome the negative pressure of the glovebox maintained by ventilation. Rescinding this USQ will allow BWHC to repackage three paneled or bulged cans of plutonium items.

Mr. Sautman and I discussed the PFP path forward, particularly staffing issues, with DOE-RL and contractor representatives. A basis exists for the staffing and schedule estimates in the Integrated Project Management Plan; however, BWHC admits that in some cases these estimates are conservative and some acceleration opportunities exist. Particularly promising are the potential to accelerate installation of additional muffle furnaces and the stabilization of polycubes. Each of these acceleration opportunities is a focus of the cleanup initiatives announced by DOE-RL last week.

I toured the prototype calciner on July 22<sup>nd</sup>. During equipment checkouts, water and oil contamination in the process air system had flooded the calciner vessel and had plugged the ceramic filters. Reassembly of the calciner, drying of the vessel, and final checks are necessary before cold runs can begin. Although the number of required cold runs has been reduced, and it is expected that cold runs may start next week, it is unlikely that hot operations of the prototype calciner will begin by July 31 as committed to in the 94-1 Implementation Plan. (III.A.1.a)

B. Spent Nuclear Fuel Project (SNFP): I toured the K-West Basin and the Cold Vacuum Drying Facility on January 23<sup>rd</sup>. Construction activities were underway in K-West in preparation for installing the decapping station of the Fuel Retrieval System. Flexible hoses of the Integrated Water Treatment System were floating along one wall of the basin. These hoses effectively formed a dam so that surface material was not picked up by the skimming weirs. As a result, the surface of the basin water was noticeably cluttered with foreign material.

Noteworthy milestones achieved this week for the Spent Nuclear Fuel Project include the start of acceptance testing of the Integrated Water Treatment System and the authorization to procure the Multi-Canister Overpacks and fuel baskets. (I-A.3.a., III-A.3.)

cc: Board members