

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 3, 1997

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

**FROM:** P.F. Gubanc & D.G. Ogg, Hanford Site Representatives

**SUBJ:** Activity Report for Week Ending October 3, 1997

Staff members Barton, Arcaro, Grover, Gwal, Hadjian, Moury, Roarty, Stokes, Thompson, Wille, Yeniscavich, and Zavadoski and Outside Expert Volgenau were on site this week to review the Spent Nuclear Fuel Project. They were assisted full-time by Mr. Ogg.

A. Plutonium Finishing Plant (PFP):

**1. Pu Oxide Reaction:** Last week, Mr. Fortenberry reported that a Pu oxide can at Savannah River (SRS) was discovered to be “paneled” (buckled inward). Based on his inquiries, we learned that PFP had also recently experienced the same type of occurrence. PFP and SRS representatives are now communicating on this issue.

**2. Pu Metal Reaction:** On December 23, 1996, an unanticipated sparking reaction was observed at PFP while puncturing a container of Pu metal. On September 29, 1997, the PFP staff concluded this event represents an unreviewed safety question at PFP. Copies of the USQ Evaluation and supporting document are being forwarded to DNFSB-HQ.

**3. DOE Response to Board Letter:** On October 2, DOE issued its response to the Board's September 17 letter on PFP. Mr. Gubanc, in coordination with the headquarters staff, is reviewing DOE's response and preparing a staff position relative to its adequacy.

B. TWRS: On September 29, the TWRS Basis for Interim Operation (BIO) went into effect. On October 1, Mr. Gubanc spent the day performing spot-checks and concluded the following:

1. DOE-RL and Lockheed Martin (LMHC) expended significant effort to ensure LMHC personnel and procedures were prepared for the transition. Over the next month, all TWRS work packages are being reviewed for conformance with the BIO controls.
2. The DOE-RL Facility Reps are dutifully evaluating BIO implementation but are not taking advantage of the specialized BIO expertise within DOE-RL. Once this was brought to their attention, consultation with the DOE-RL experts occurred.
3. LMHC announced a management shuffle and minor organizational realignment effective October 1. These changes did not appear to have been controlled in accordance with the BIO administrative control on “Organization”. DOE-RL is reviewing this with LMHC.

C. REDOX Canyon: In July 1996, we raised concerns with the structural integrity of the REDOX roof and its ability to act as a confinement barrier to residual materials in the canyon. Bechtel Hanford, Inc. (BHI) ultimately concluded that reinstalling the canyon cell cover blocks (six were not installed) was the most time and cost-effective means to improve REDOX's safety posture. On September 30, 1997, BHI reinstalled the six REDOX cover blocks without incident.

cc: Board members