

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 22, 2004

TO: J. Kent Fortenberry, Technical Director
FROM: R. Todd Davis/Donald Owen, Oak Ridge Site Representatives
SUBJ: Activity Report for Week Ending October 22, 2004

Mr. Davis was at the Savannah River Site all week. Staff member Linzau and outside expert Rizzo were at Y-12 to observe a planning meeting for mass concrete placement for the Highly Enriched Uranium Materials Facility (HEUMF).

A. Highly Enriched Uranium Materials Facility - Concrete Placement. Soil excavation is progressing ahead of schedule and the first placement of mass concrete for the foundation is now anticipated in mid-November. The staff, site rep. and outside expert observed a planning meeting for mass concrete placement for the HEUMF and performed a walk-down of the excavation site. Discussion items included the approach to ensure that the concrete would be placed on solid material, the control of temperature in the placed concrete, the methods of concrete quality control, and preparations for an unexpected stoppage of a placement. The staff and site rep. have requested information/results from Y-12 efforts to capture lessons-learned with large, thick concrete placements at the Hanford Waste Treatment Plant (March 26th site rep. report).

B. Oxide Conversion Facility. A number of safety programmable logic controller (PLC) alarms were received in the months leading up to and during the recent contractor Operational Readiness Review (October 8th site rep. report). Software changes are on-going that will reduce alarms associated with the PLC. BWXT stated that these changes are consistent with vendor recommendations and will not adversely impact the PLC from performing its safety function. Following inquiries from the staff, site rep. and YSO personnel, BWXT will ensure that important PLC alarms that result in system shutdown will continue to display at the operator interface. BWXT also committed to ensuring that other PLC alarms not displaying at the operator interface will be evaluated by a system engineer prior to each batch run.

C. Activity-Level Work Planning. As reported on June 18th, a work package to stop a pipe clamp ring leak on an acid pump in Building 9204-2 included additional scope to replace the pump if the clamp ring leak could not be stopped. A Job Hazard Analysis (JHA) had not been performed, however, as required by the JHA screening criteria. Following recent site rep. inquiry on followup actions, BWXT management has concluded that the JHA screening criterion dealing with breaching a hazardous system required modification; the criterion included the words "... that requires additional evaluation by ES&H personnel" that rendered the criterion ambiguous. BWXT management is revising the criterion to clearly require JHAs for hazardous system breaches.

D. Building 9212 Roof Leak. Late last week, the site rep. and staff observed a roof leak close to an electrical control panel. A waste drum used to catch the rainwater was full and overflowing. Despite this observation being noted to YSO and building management last week, the situation was found to be persisting this week by BWXT Manufacturing Division management. BWXT management noted to the site rep. that identification of a leak representing a substantial hazard and the taking of prompt, proper action was lacking in this case. BWXT management noted that actions are being developed to sensitize Y-12 facility management personnel on this issue.