

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 24, 2003

TO: J. Kent Fortenberry, Technical Director
FROM: Donald Owen, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending October 24, 2003

A. Building 9204-4: Storage of Machine Chips - Update. As reported on September 5th, in follow-up to a staff inquiry on protocols for storage of depleted uranium machine chips, it was determined that chips are stored under various conditions including several drums that are not vented. As part of near-term actions to address the chips, Y-12 has been planning to vent the unvented drums using a remotely operated brass punch. The site rep. and staff discussed the work planning performed for this activity with YSO and BWXT personnel. Three items of note:

- BWXT did not have the results of the investigation of an August occurrence involving a deflagration in the head-space of a transuranic waste drum being vented at the Idaho National Environmental Engineering Laboratory. The site is now obtaining this information.

- The Unreviewed Safety Question Determination (USQD) screen for the chip dispositioning activities, including the drum venting, was negative (i.e., no USQD is to be performed). The site rep. inquired about this result with YSO management who indicated that they would review the screen.

- The approved Job Hazard Analysis (JHA) for the chip disposition activities appeared to be problematic including: controls to perform drum venting in a ventilated hood when use of a hood was not intended; and controls such as "contact fire protection engineering" for fire hazards or "initiate a RWP [radiological work permit] Request" for radiological hazards. YSO management indicated that they would review this JHA and also address any broader implications to activity work planning at Y-12. (2-A)

B. Y-12 Conduct of Operations. Two events this week involved work control and procedure use issues, one where work was stopped prior to work commencing and one where several opportunities to stop were bypassed:

- Material Control Organization (MCO) personnel were to off-load a major component into Building 9204-2E (assembly/disassembly area) from a transportation vehicle. An individual from Building 9204-2E, independently assigned to assess the off-load, identified that the wrong procedure was about to be used to off-load the component. The correct procedure for the off-load was not at the job site. After being notified, Building 9204-2E and MCO management stopped the operation. Fact-finding continues.

- A job in Building 9204-2 (lithium processing) to perform preventative maintenance (PM) cleaning of nine solenoid-operated valves in a nitrogen system was found to be improperly planned and started. A worker had begun to disassemble an air system valve that was pressurized (and not part of the intended scope; the air valves had not been isolated). The worker stopped the disassembly upon hearing air flow. Fact-finding revealed that the "skill-of-the craft" work package in use provided no more definition to the scope of work than "PM the B-Line Pulverizer." A series of verbal communications among workers, supervision and engineering personnel led only to informal identification (affixing of yellow tape) of the valves to be worked. Several air system valves were incorrectly identified as the intended nitrogen system valves. Several failures were evident in properly/precisely defining the scope of work and in authorizing and supervising this work. Causal analysis and corrective actions are in development. (1-C)