

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 12, 1999

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

**FROM:** Paul F. Gubanc, Oak Ridge Site Representative

**SUBJ:** Activity Report for Week Ending March 12, 1999

Staff members Burns and Forsbacka visited Y-12 and ORNL Building 3019 this week to review criticality safety. Staff members Gwal and White visited Y-12 to review electrical upgrades and Y2K compliance.

A. Visit by DOE Deputy Assistant Secretary Ives, DP-20: On March 12, I attended briefings provided to Mr. Gene Ives and members of his staff. Highlights include:

1. Storage of UF<sub>6</sub> at the Portsmouth Gaseous Diffusion Plant currently includes five small cylinders of DP material. The DOE program which formerly paid for its storage (including security) is discontinuing its funding and desires to have the material shipped to Y-12 to join several other cylinders already in storage at Y-12. Unfortunately, Y-12 currently has no capability to convert this material into a chemical form usable by Y-12 (e.g., UF<sub>4</sub> or oxide). I will follow up to obtain a better understanding of the current storage situation at Y-12.
2. Y-12 presented a revised schedule for the Phase-B restart of enriched uranium operations which would delay the operational readiness review (ORR) from September 1999 to March 2000. Some of the considerations cited by the contractor for this delay include:
  - a. Process hazard evaluations are identifying issues and required corrective actions earlier.
  - b. Using surrogate material for testing and training in some processes is not acceptable.
  - c. Current material inventories can support the delay without affecting delivery schedules.
  - d. Difficulties encountered with completing some new systems (e.g., HF system).
3. ORNL presented their schedule and funding requirements for the U-233 inspection program at Building 3019 (which DP currently funds). The commencement of container inspections is now planned for August 1999 (versus April 1999 as previously stated). DOE and ORNL will brief additional details to the Board on March 16. (II-B., III-A.)

B. Follow up on Staff Review: Additional information on open items from the staff review:

1. **Y-12 Chirpers** - Y-12 utilizes personal electronic dosimeters ("chirpers") as a compensatory measure for areas not covered by the Criticality Accident Alarm System (CAAS, due to power outages, etc.). This week, chirpers were response tested at a Sandia reactor. The chirpers at 2 feet failed, those at 3 feet were damaged but alarmed at 2 secs, and those at 4 feet and greater alarmed at  $\leq 1.5$  secs. A formal report documenting the results will be issued.
2. **Uninterruptible Power Supplies (UPS)** - Some (but not all) of the Y-12 Emergency Notification System is backed up by UPS. During a staff tour, a UPS was found overdue for battery replacement (due Nov. 98). Y-12 subsequently identified: a) preventive maintenance had been previously suspended due to a concern with maintaining power during battery replacements; and b) they intend to replace the battery in May 1999; within the allowed 25% variance on maintenance periodicity (36 month frequency). I am not yet satisfied that the suspended maintenance is being tracked closely enough to ensure that *essential* maintenance is performed as required. (II-B.2)

cc: Board Members