

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 20, 1998

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

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

**SUBJ:** Activity Report for Week Ending November 20, 1998

Staff members Massie, Thompson, and Yeniscavich were in Oak Ridge this week to review progress on Recommendation 97-1 and the ORNL Building 3019 inspection plans for U-233 storage.

A. Y-12 Enriched Uranium Operations (EUO) Phase-A2: The DOE Operational Readiness Review (ORR) for EUO Phase-A2 concluded this Wednesday. Key observations from the ORR included:

1. Several ORR team members who had also participated in the Phase-A1 DOE ORR, spoke enthusiastically about the improvements since Phase-A1. They stressed how the additional time taken to practice evolutions, refine procedures and disposition deficiencies had resulted in much more efficient and effective operations.
2. Operator performance and DOE technical oversight were highlighted as major strengths.
3. The ORR identified only one pre-start, and seven post-start findings; all of which the ORR team felt comfortable leaving to the DOE Y-12 Site Office (YSO) to close.
4. The ORR team stressed that certain post-start findings represent significant issues which demand near-term and significant management attention. Specifically identified were the swelling EUO maintenance backlog (now at over 2600 items), lack of progress on Phase-A1 post-start findings (e.g., criticality safety evaluations and the operational drill program), and material inspection and control.
5. Fire Protection, an acknowledged problem at EUO, was not the subject of an ORR finding. The team considered the plans, actions and compensatory measures currently in place adequate to address the identified problems.

The final DOE ORR report is expected to be issued November 23. Final authorization and restart of EUO Phase-A2 processes is expected the week of December 14. This is dependent on EUO closing all their remaining pre-start issues (currently ~30) and obtaining YSO approval of their post-start issue corrective action plans (currently ~16).

B. U-233 Inspection at ORNL: On November 19, I attended the staff review of ORNL's plans to inspect U-233 storage in Building 3019. A walkdown of the key handling and inspection locations in Building 3019 was conducted. Observations include:

1. Each of the packages to be inspected will be handled **at least** three times, and perhaps several times more, to complete the inspection and possible overpacking/repacking process. The process flow is not designed to readily deal with grossly leaking or damaged packages.
2. Modular concrete storage arrays are envisioned to store "in process" packages. This same technique was dismissed in the U-233 Storage Alternative Trade Study.
3. Quantitative inspection criteria have not been developed; much of the inspection data was to be evaluated using "engineering judgement." The staff stressed the need for clear, objective criteria to assure consistent evaluation and the deliberate use of engineering judgement.
4. The external smearing technique plans to utilize remotely-operated adhesive-backed swipes. The potential liabilities with using these swipes appear not to have been well examined.

cc: Board members