

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

**TO:** G. W. Cunningham, Technical Director  
**FROM:** R.F. Warther, M.T. Sautman  
**SUBJECT:** RFETS Activity Report for Week Ending June 27, 1997

Herb Massie, Larry Zull, and Tonya Huntley reviewed the authorization basis for salt stabilization. David Hayes reviewed salt stabilization nuclear criticality issues. Bob Warther was on vacation.

**Building 707.** As reported in the June 6 weekly report, the Material at Risk (MAR) was not being tracked for Modules J and K, as previously committed. In response to issues raised by the technical staff, the applicable Operations Order is being revised to limit the MAR in Modules J and K to 165 kg plutonium-dose-equivalent (plutonium plus Am-241). Upon approval of the BIO Appendix by RFFO, control of the MAR would be elevated to a Limiting Condition for Operations. The MAR for a limited building collapse (Modules A - H) would remain at 70 kg. The MAR for a total building collapse would be raised to 365 kg - the previous 70 kg plus an additional 295 kg in Modules J and K. These collapse scenarios could result in a bone dose to the MOI of 8 rem and 27.5 rem, respectively. Excluded from the MAR would be plutonium in the six H-Cells and X-Y retriever, plutonium metal, and 90% of the MAR in pipe overpack containers. Ongoing seismic evaluations are attempting to validate the assumption that the H-Cells and X-Y retriever could withstand an earthquake that would collapse the rest of B707 and its Annex.

**SNM Consolidation.** All of the special nuclear material in Vault 152 in B776 has been moved to a more robust location. This consolidation was performed in response to concerns raised by the technical staff and others about the structural adequacy of this vault. This consolidation was completed three months ahead of schedule.

**Readiness Reviews.** The June 6 weekly report identified technical staff concerns about K-H having the startup approval authority for projects like salt stabilization that were behind schedule and involved performance measures that may be missed. In addition, RFFO questioned the adequacy of the contractor's recent management review for the electrolytic decontamination of enriched uranium hemishells. During the first few runs, several training issues were identified: operators were never trained on an operational glovebox, no dry runs had been performed for parts of the process, and equipment was incorrectly manipulated. RFFO will now have startup approval authority for all activities that require Board deliberations. RFFO has also requested that K-H prepare a plan for improving the management review process.

**Decommissioning.** EM-50 announced the selection of a RFETS Technology Deployment Initiative proposal for B707. This proposal was prepared by RMRS and is titled, "Enhanced In Situ Decontamination and Size Reduction of Gloveboxes." The proposal was combined with a related LANL proposal. Funding is contingent upon Congressional funding appropriation.

cc: Board Members