

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 10, 1998

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

**FROM:** M. T. Sautman, R. F. Warther

**SUBJECT:** RFETS Activity Report for Week Ending July 10, 1998

**Recommendation 95-2.** A Limiting Condition for Operations limits the material at risk (MAR) in B707 and its annex. A review of MAR calculations since late March identified several significant errors (i.e., several kilograms) in determining the Pu-equivalence for americium. Although many of the errors partially canceled each other out, the B707 LCO MAR limit was exceeded twice in June. An OSR procedure violation was declared and nuclear operations were terminated. The rigor of the MAR calculations decreased when responsibility for tracking the MAR was transferred from the Shift Technical Advisors to another organization. B707 personnel did a thorough review of the current MAR and will be using a computer program, more independent verifications, and periodic audits to prevent this from recurring.

**Recommendation 94-1.** The Management Review for repacking dry residues and classified shapes in B707 Module D began this week, but will not be complete for another week or more. The review started although criticality limits and glovebox modifications were not complete and the operators had not performed a complete dry run of the main repacking procedure. The only thing performed this week was a dry run for repacking LECO crucibles, which went well.

Pyro-oxidation of electrorefining salts began this week. Some findings still need to be closed for other high Am salts (i.e., MSE salts). To date, nearly 1100 kg of salts have been processed. All residue categories have now been characterized to an 80/15% confidence level, including 10 categories already completed to a 95/5% confidence level due to their small population size.

Operators were able to establish a purge path for the oxalic acid system in B771 by slightly modifying the purge path. Draining should begin next week. The cause of last week's problems was determined to be a plugged pipe, not a bad valve. The blockage's location has been found, but it has not been removed yet. In B371, operators spent the week reverifying valve lineups for all the drain sequences because of the incorrect valve configuration encountered last week.

**Waste Management.** K-H has recommended converting the B551 warehouse into a waste storage facility with a capacity of 14,000 drums of low-level and TRU waste. The Site Reps have the same concerns about B551 as previously mentioned about B440: potentially tons of plutonium stored in a Butler building with no HEPA filtration that is near office buildings. The risks are much lower for waste stored in pipe overpack containers. At RFFO's request, K-H examined the costs and risks associated with installing HEPA filtered ventilation systems in B440 and B551 or upgrading them to PC-3 seismic criteria. The Site Reps will follow this issue.

cc: Board members