

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 24, 1998

**TO:** G. W. Cunningham, Technical Director  
**FROM:** R. F. Warther, M.T. Sautman  
**SUBJ:** RFETS Activity Report for Week Ending July 24, 1998

**B779 Lessons Learned.** As a result of the potential uptake last week, two changes to procedures for B779 were made. First, total containment, anti-C's and an air purifying respirator will be required for all cuts into all systems associated with the former hydride lab. Second, the first cut on any system tied directly into a glovebox will require engineered controls and PPE. Procedures are being established to address variances in these rules. Additionally, the crimp and cut procedures are being revised to ensure that they are adequate to minimize potential exposure to workers.

Although the potential uptake last week was nowhere near the threshold requiring chelation, the Site Reps investigated chelation procedures at RFETS as a precautionary review. Based on discussions with RFFO and K-H personnel, chelation procedures exist, chelation agents are available at RFETS and are maintained within their expiration dates. A medical doctor is on call in the event a decision to use chelation must be made. Based on tests, chelation agents must be administered within 24 hours to be most effective, and preferably within the first twelve hours following an uptake.

**Recommendation 94-3.** K-H and SSOC personnel are completing implementation of the B371 BIO. For those items that are not fully implemented, SSOC will implement LCO action statements, prepare Action Plans for Administrative Controls not fully implemented, and draft a JCO for review and approval by RFFO. The JCO will be delivered on Monday 7/28. The Independent Validation Review (IVR) will be conducted by K-H over the weekend of 7/25-26.

**B707 Material at Risk (MAR).** B707 was shutdown Tuesday when it was discovered that the MAR was not adjusted for the transfer of a salt residue can from the annex to Module A – a missed LCO surveillance. Further investigation identified additional recent errors in tracking the MAR (involving 16 and 6.6 kg Pu-equivalent containers) and problems with reconciling the Safeguards Accountability Network and the MAR database. These occurred after corrective actions for the last MAR OSR violation two weeks ago. The Site Reps continue to be very concerned with the ability of B707 personnel to accurately keep track of the building's MAR. Responsibility for tracking the MAR has been transferred to Nuclear Material Control, the group that already tracks all SNM movements for accountability purposes.

**Recommendation 94-1.** SSOC presented their strategy for removing process piping immediately after tapping and draining them. In response to Site Rep concerns (see May 22 report), SSOC has developed prioritization criteria that take into account actinide concentration, potential for hydrogen generation, whether the system is leaking, and other factors. Initial projections show removal of all actinide systems by early to mid-2001 with the remaining potentially contaminated reagent systems removed by the end of 2001. Except for some minor comments, the Site Reps agree with SSOC's proposed strategy.

The Site Reps attended a videoconference between RFETS, SRS, Hanford, and DOE-HQ about a K-H/SSOC/WSRC proposal for packaging, stabilizing, and shipping plutonium to SRS. The proposal was very similar to that previously described in the June 12 report. Based on available data, there appears to be little schedule or cost benefit, but the contractors still need to do more detailed

evaluations. The real issue appears to be contractor wariness about the reliability of the 3013 packaging system. DOE-HQ also indicated that the upcoming record of decision would likely require plutonium to meet a long term standard *such as* 3013, rather than *specifically*, (“e.g.” rather than “i.e.”) before it could be shipped.

The management review for repacking dry residues and classified shapes continued this week with interviews and a demonstration of the drum dump. The B707 shutdown limited activities.

cc: Board Members