

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 17, 1998

TO: G. W. Cunningham, Technical Director

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

SUBJ: RFETS Activity Report for Week Ending July 17, 1998

B779 Potential Uptake. Two incidents in B779 have occurred recently that the site reps are following. The more serious event was a potential uptake by several workers in the facility during deactivation operations. Workers were removing a vacuum gage associated with the hydride glovebox. Two crimps and cuts had been made to size reduce the 1/2" stainless steel vacuum tubing with no contamination incidents. However, when the third crimp and cut was made, workers noted an increase in the levels of contamination and a SAAM alarmed. At the time, workers were not wearing respirator protection. Workers took corrective actions, stopped the job and left the area. Nasal swabs showed 6300 dpm on one worker, and 93 dpm on a second. Urine and fecal samples were ordered. The urine samples will be available over the weekend, while the fecal results will not be available for three weeks.

The second incident occurred when DAC levels in a tent increased to 231,000 DAC. All personnel in the tent were wearing pre-maire PPE at the time and no exposures to personnel were observed. The suspension limit was 100,000 DAC, personnel took the proper corrective action and evacuated the tent.

During the investigation, it was noted that systems thought to be clean but connected to contaminated systems (e.g., vacuum systems connected to a glovebox) are likely to be contaminated and should be treated as such. The reason is that over the operating history at Rocky Flats, pressure variations and flow reversals probably have spread contamination to areas that should be clean. Although two crimps and cuts had been made successfully, the geometry of the system was such that contamination on the third can be explained. The site also is investigating its crimp and cut procedures to ensure they are consistently adequate. The Site Reps will attend a test demonstration next week. The Site Reps also are reviewing site criteria and procedures for removing internally deposited Pu. Although no activities to date have necessitated this action, it is not unreasonable to expect that these procedures may be required in the future.

Recommendation 94-1/Readiness Determinations. Since starting the dry/repack residue Management Review (MR) on July 7, nothing has been performed except a dry run last week for repacking LECO crucibles. This is only a minor part of the MR since two operating lines are already using the same procedure. SSOC will not be ready to conduct the dry run for size reducing and declassifying dry residues until at least 2 weeks after declaring themselves ready.

In B371, operators began repacking filter media residues inside a plastic house. Low risk combustible residues are weighed, assayed, and repacked as TRU waste. Although this simple activity was performed safely, several issues had to be resolved the first day since the operators had never performed a dry run of the procedure beforehand and the procedure had not been properly validated and verified. This activity did not require a readiness review, just management approval. Two more combustible repack lines are planned.

These two activities and recent management review failures illustrate a persistent SSOC problem of building management prematurely declaring readiness. (SSOC is, however, adequately evaluating readiness satisfactorily during formal reviews). These premature readiness declarations cause delays by extending the length of the reviews, having to repeat the reviews, and increasing the number of findings. The Site Reps plan to talk to contractor managers about this issue since the reviews should evaluate readiness, not be used to achieve readiness.

Nearly six months after they started, operators completed draining the B771 oxalic acid system. In addition, the July 98 milestone to complete processing liquids from B771 high level tanks and bottles was met as the remaining bottle solutions were processed in CWTS.

Recent characterization data shows that some sand, slag, and crucible (SS&C) residues exceed shipping container loss-on-ignition criteria. Moisture samples now have to be taken from each batch. Unless the criteria are changed, some SS&C may not be able to be shipped and might instead be disposed at WIPP in a pipe overpack container. Shipments to SRS cannot start until the 9975's Safety Analysis Report for Packaging is revised, now delayed from July until Fall.

Building 707 Material at Risk: A comparison of the MAR logbook with the Safeguards Accountability Network identified an 18 kg error. It now appears that the 70 kg OSR limit was exceeded for several days. The MAR may have been as high as 90 kg—more than 25% over the limit. SNM movements have brought the MAR back under the limit. The Site Reps are still concerned with how MAR is being tracked.

TRU Waste Storage: Last week's Site Rep report discussed some concerns with converting B551 into a 14,000 drum TRU waste storage facility. These concerns were reduced after K-H stated that they expect about 75% of the drums to be pipe overpack containers (POC). In addition, both K-H and RFFO were receptive to the Site Reps' suggestion to:

- 1) use B551 to store POCs and TRU waste that is not dispersible or has little Pu content and
- 2) store combustible and dispersible TRU waste (not in POCs) in hardened facilities that have HEPA filters.

B371 BIO Implementation. RFFO sent a letter from its contracting officer to K-H stating that the current B371 Authorization Agreement will not be modified or changed. The significance of this letter is that the B371 BIO completed under Recommendation 94-3 will be the AB of record beginning August 1. At this point, K-H and SSOC intend to implement as much of the BIO TSRs as possible, enter into corrective actions for those requirements which are not met, and submit a JCO asking DOE to accept the risk for the remaining issues which are not met by completing the TSRs or action statements. The Board staff (Kasdorf, Blackman and Bamdad) will brief the Board in detail on this topic on July 24.

cc: Board Members