

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 4, 1997

TO: G. W. Cunningham, Technical Director
FROM: R.F. Warther, M.T. Sautman
SUBJECT: RFETS Activity Report for Week Ending April 4, 1997

Pit Shipments: The Site Reps observed workers preparing pits for shipment to Pantex. AL-R8 shipping containers were opened and the pits visually inspected and swiped for contamination. Workers wore respirators until it was determined that there was no airborne contamination. The pits were then transferred to a MOD-FL container which was later leak tested. although the process was not heavily proceduralized, the process was simple and the operators performed the work without any problems. Checklists for performing visual inspections are being developed with LANL and LLNL. This checklist will cover topics like tube, braze/weld, and surface conditions. If any problems are identified, the pits would be packaged in the normal manner and sent to LANL.

The pits observed last week cannot be leak tested because they do not contain any gas. The Site Reps have been investigating historical problems with leaking pits. although some pits sent by RFETS to Pantex in the 1980s were initially believed to be leakers, subsequent investigations by RFETS personnel determined that there were problems with the leak test procedure used at Pantex. Subsequent pit leak tests performed using a revised procedure reportedly found the pits intact. Other reports of contaminated pits were thought to be due to external contamination sources (e.g., gloves, tables), not leaking pits. RFETS expects to have an operable leak test capability in early June that can leak test one pit an hour. However, this equipment is in another building and will be used for the Crimp and Seal program until mid-August.

B886 Deactivation: Holdup removal in Room 103 has been completed. Approximately eight liters of 200 g/l highly enriched uranyl nitrate solution holdup were removed. Decontamination of Room 101 began. As soon as the revised Basis for Operations is approved, they will start removing the pit raschig rings.

B440 ORR: The Site Reps attended the exit meeting for the Building 440 Corporate Operational Readiness Review. The scope of the ORR included receive, store, and ship Low Level Waste (LLW) and TRU Waste. The ORR excluded LLW repack, and RCRA processing. The ORR Team concluded that areas of excellence included performance by operators, conduct of the drill program, BFO content and knowledge, housekeeping, and training and qualification plans. Areas requiring improvement include: inconsistencies between the B440 Basis for Operations, instructions and Site Program requirements; weak implementation of the BFO; and support organizations (e.g., radcon, crit engineering) are not positioned to support building operations. Twelve prestart findings were presented, and three post-start deficiencies were identified. K-H recommended that DOE conduct its ORR upon satisfactory resolution of the prestart findings.

D&D Privatization: RFETS personnel have drafted the B779 and B886 Privatization Project Summaries, documents required by the Department's Guidance for FY99 Privatization Proposals. According to the Guidance for Proposals document, the project must be cost effective, the scope of work and assumptions must be "thoroughly defined ... and the end product or service precisely defined," and regulatory oversight should be defined. According to the draft Privatization Project Summaries, cost savings are realized by assuming that the M&I contractor will sustain a 32% cost overrun, the private contractor will achieve a 20% efficiency improvement, and the M&I receives a 15% G&A fee. Using these assumptions, DOE will net savings of about 25%. If the M&I does not sustain a cost overrun, and the private contractor cannot recognize a 20% efficiency improvement, then the cost of using the M&I is actually lower because the Treasury cost of money is less than

the commercial cost of money. The Privatization Project Summary does not provide detailed specifications that could be used for a procurement package, nor does it address AB issues. The regulator would be determined in accordance with the provisions of RFCA. The Site Reps discussed this topic with the K-H VP for Closure Projects who stated that these documents require significant additional work before they are ready for formal submission to DOE.

Risk from Am-241: K-H briefed RFFO regarding site risks from Am-241 residues. The brief provided data that indicates americium residues increase the risk to the public by 20% to 300%. RFFO and K-H will be ready to conduct a video-teleconference on either Wednesday 4/9 or Thursday 4/10 to brief Board members regarding risks from this review and proposed actions to minimize or reduce the risks. Possible actions range from accepting some increase in risk, which was verbally rejected by RFFO, to accelerating the exit from Building 771. This latter action makes sense for several reasons. First, K-H's proposal to drain high level solution tanks in B771 and process the solutions using CWTS in B371 rather than oxalate precipitation in B771 will save between two and five million dollars that could be used for deactivation. K-H already indicated their intentions to use this approach in briefs to RFFO and discussions during Dr. Kouts' and Dr. Eggenberger's visit. Second, if K-H reduces the quantity of nuclear and chemical hazardous materials in B771, the recently completed BFO would be much easier to implement. This has been discussed with Mr. DiNunno. Third, deactivating B771, including removing Am-241 contaminated residues, would reduce risk to the public during a 1000 year return earthquake by at least 15%, and probably more. The Board staff was provided a copy of the brief.

Vaults: The Site Reps completed their walk down of all the RFETS vaults this week. The Site Reps will be prepared to discuss this topic at the site rep conference, and will complete a summary of the findings the following week.

Interactions with the Public: As part of the Settlement Agreement and Consent Order, CDPHE has requested information from DOE on several aspects of residue rebaselining. Topics include detailed justifications for each process, cost estimates for the baseline and rebaseline, schedules for completing stabilization, and estimates of waste generation. The Site Reps have been working with the CDPHE to try to keep them informed of our residue reviews and keep our actions integrated. A meeting among EPA, CDPHE, and DNFSB Site Reps is scheduled for April 16 to discuss these and other risk reduction issues in more detail.

cc: Board Members