

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 7, 1997

TO: G. W. Cunningham, Technical Director
FROM: R.F. Warther, M.T. Sautman
SUBJECT: RFETS Activity Report for Week Ending March 7, 1997

B886 D&D Significant progress has been made deactivating Building 886. The MAA was closed on February 26, and the fence surrounding the protected area has been removed. The facility has been downgraded to a Category III facility. All but about 15 liters of solution has been removed. The concentration of the remaining solution holdup is estimated at 100 grams per liter. The BIO is in the process of being revised to remove raschig rings as an engineered control. Once the BIO is revised, raschig rings will be removed from the pit and tanks in room 103 and shipped to NFS in Tennessee. As previously reported, all the HEUN drained was shipped to NFS. NFS is currently processing about 230 liters per week of solution. At the current rate, all 2655 liters of HEUN will be processed by May. NFS estimates that an additional \$1.4 million will be required to reimburse them for unexpected costs from NRC reviews.

Recommendation 94-3 The Site Reps attended two meetings related to Recommendation 94-3 efforts: one with personnel working on the B371 BIO to discuss the control set and a second with RFFO sub-contractors (including George Antaki) to discuss their audit and analysis of K-H progress. The Site Reps referenced Tech-5, Tech-6 and Recommendation 95-2 at the meeting with K-H personnel. K-H personnel seemed to accept the notion that additional engineered controls were required, and that a failure to reference existing site procedures where available and adequate required correction. With respect to the RFFO contractor review, a draft report will be available on Wednesday, March 12, and RFFO management will be briefed on the results of the review on March 14.

Recommendation 94-1 Tank 452 in B771 was drained this week. Approximately 500 liters of solution at a concentration of five grams per liter were drained into 140 four-liter bottles. The bottles are stored in two gloveboxes, and will remain in these gloveboxes until a decision is made regarding processing using an oxalate process in 771, or blending the solutions and processing in B371. The following table shows the current Recommendation 94-1 Implementation Plan milestones and the projected completion date if all B771 high-level tank and pipe solutions are processed in CWTS.

Milestone	IP Date	New Date
B771 Start draining 5 tanks and begin oxalate processing	11/97	2/97 (Tank 452) 8/97 (4 remaining tanks)
B771 Complete processing liquid from tanks and bottles	5/98	4/98
B771 Complete processing all liquids in the building	9/98	4/99
B371 Complete draining of two criticality drain tanks	6/97	11/97
B371 Complete processing liquid from eight tanks	6/97	4/98
B371 Complete processing all liquids in the building	6/99	6/99

Overall, the tradeoff is an acceleration of solution removal from B771 in exchange for some delays in processing the solutions. B771 tank and bottle solutions could be removed by 12/97 (rather than 4/98) and the rooms drained by 9/98. Draining and processing of solutions from the last two tanks in B371 would be delayed so they could be used to dilute B771 solutions. K-H has requested RFFO approval to stop work on all oxalate

readiness activities. The resources saved by not performing oxalate precipitation (over \$2 million estimated) will hopefully be used for draining solutions from pipes and operationally empty tanks, a project which was unfunded and behind schedule. The Site Reps believe that no requests to extend the milestones should be approved unless RFFO provides a list of additional B771 deactivation activities that will be accelerated.

Building 707 The Site Reps conducted a detailed tour of B707 with the former production manager to review installation of residue processing capability as well as identify holdup locations in the building, systems and components. One of the largest sources of holdup may be in the bottom of the lathes in Module C. During production, some of the bellows at the bottom of the T lathes ruptured, permitting material to enter into inaccessible areas. A total of about 4 kg and 2 kg of Pu turnings were removed from two of the Building 777 and 707 lathes respectively several years ago. Some material likely remains in other lathes on site that have not been inspected. Other areas include large releases in modules J and K several years ago following maintenance, and several oil spills on the Module C floor that have penetrated the concrete. Modules D through H are largely clean as a result of the inspection activities performed in those modules.

Criticality SSOC is working to implement advice received from the Board following the visit in February. SSOC has increased their productivity of criticality reviews. They reviewed more than 30 in the month of February compared with about six per month during the middle of 1996. SSOC also is working to combine further reviews for future activities, as well as increase the rate at which crit infractions are resolved. Many of the crit infractions which were in place in 1996 have been cleared. The drum infraction remains unresolved, although the final letter from K-H to RFFO containing recommended actions to resolve this problem should be approved by RFFO next week.

Interactions with the Public Mary Harlow, a Westminster resident and member of the Citizens Advisory Board called to request an update to stabilization activities at RFETS, and ask questions regarding Pu storage at RFETS and shipments to SRS. The Site Reps responded by stating that stabilization of solutions was proceeding reasonably well, and that plans for some of the technologies planned for stabilization of residues were still being discussed. The Site Reps reiterated the Board's position that Pu can be stored safely at RFETS if upgrades to B371 are completed, and that the Board had just visited RFETS to discuss B371 upgrades among other topics. She also asked about NRC regulation. The Site Reps responded by stating that no draft legislation was in Congress, and Mr. Conway would have additional information if required.

cc: Board Members