

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 20, 1999

TO: G. W. Cunningham, Technical Director
K. Fortenberry, Deputy Technical Director

FROM: D. F. Owen, RFETS Site Representative

SUBJECT: RFETS Activity Report for the Week Ending August 20, 1999

Building 771 Deactivation. Resolution of pre-start findings from the Management Review for glove box size reduction activities in the new Inner Tent Chamber was completed. DOE-RFFO continues to work with Kaiser-Hill and RMRS on resolving post-start issues. Glove box size reduction operations were authorized and will likely start the week of August 23, 1999.

The engineering design package for the next generation (or Phase 2) Inner Tent Chamber is to be made available for staff review early the week of August 23, 1999. (III-B.1.a)

Building 776/777 Deactivation. A new Basis for Interim Operation (BIO) for the Building 776/777 Complex has been approved to cover activities associated with deactivation and Kaiser-Hill conducted an Independent Validation Review (IVR) to assess implementation of the BIO controls. The IVR briefed their findings to RFETS management this week. As noted in last week's Site Rep. report, the major concern has been the deficient level of knowledge of the BIO conditions and requirements exhibited by several operations personnel including certain Shift Managers. Among many other BIO implementation findings identified were poor implementation of the combustible controls and emergency drill programs, deficient Limiting Condition for Operation surveillance procedures and deficient radiation protection practices. The IVR team considered that the Building did not demonstrate readiness to transition to the new BIO and recommended that another IVR be performed after all findings are addressed. In response to the IVR and questions from DOE-RFFO, Kaiser-Hill has ordered a stand-down of operations in the Building 776/777 Complex. Kaiser-Hill is working with DOE-RFFO to determine the limited set of tasks that will be allowed in the interim under the existing authorization basis until passing the IVR. RFETS estimates that it will take until mid-October to properly implement the new BIO and be ready for an IVR.

The results of this IVR along with the poor state of readiness exhibited for the Building 771 glovebox size reduction activity (and earlier readiness reviews) indicate deficient implementation of the readiness process by RFETS line management. DOE-RFFO has asked Kaiser-Hill to identify actions to correct this matter. I discussed with DOE-RFFO personnel the lack of a well-defined set of readiness review prerequisites and their use by line management in certifying readiness (as intended by the DOE Order on readiness reviews) as a potential contributing cause to the poor readiness performance. (III-B.1.a)

Recommendation 94-1. As noted in the Site Rep. report of July 14, 1999, a drum containing several bottles of caustic actinide solution was discovered in an infrequently visited room in

Building 371. The caustic actinide solutions all contained less than 0.018 g/l plutonium. RFETS had a 94-1 milestone to stabilize all actinide solutions in Building 371 by the end of June, 1999. RFETS has since performed a drum database search and building search to identify any additional actinide solutions in Building 371 besides those drained from tanks and piping. The search identified 9 bottles of organic solutions (about 21 liters of solution, ranging up to 0.23 g/l plutonium) and 8 bottles of chloride solutions (about 27 liters of solution, ranging up to 29.4 g/l plutonium). The caustic solutions can be immediately processed in the Building 371 Caustic Waste Treatment System. The organic and chloride solutions are being stored in Building 371 pending processing decisions. (III-A.1.a).

Emergency Preparedness: RFETS conducted a site-wide drill to exercise the weaknesses observed during exercise READY 99 in May 1999. The drill included a simulated TRU waste drum explosion during an on-site movement. Improvements were noted by Kaiser-Hill in most areas over that displayed in READY 99 including control of personnel in or near a potential high airborne area (the most disturbing deficiency during READY 99, see Site Rep. report of May 21, 1999). (I-A.4)

cc: Board Members