

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 25, 2000

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, D. J. Grover, RFETS Site Representatives
SUBJECT: RFETS Activity Report for the Week Ending August 25, 2000

Work Control. Two incidents occurred regarding work control in Building 771. Personnel changed a hose from one portable air mover to another without supervisory notification or authorization. Safety controls normally employed for such work (air mover operation to provide a negative air flow, sleeving, and respiratory protection) were not implemented. Air monitors alarmed, the room and personnel were contaminated, and at least one person received an internal uptake (preliminary estimate of about 1 rem CEDE). In another incident, work to remove floor berms had been stopped last week when conduit was unexpectedly found buried just below the floor. A corrective action had been to limit the concrete removal to only the berm and not into the floor as had been the practice. Removal of other berms was allowed to proceed this week based on verbal direction from Building 771 management without revising the applicable hazard analysis nor task instructions to reflect this limitation as required by site procedures. Kaiser-Hill management has called for an investigation to determine the root cause(s) of the work control problems in Building 771. (1-C)

Recommendation 94-1. Since revision 3 of the Recommendation 94-1 Implementation Plan, which included changes to allow accelerated deactivation in Building 707, the average rate of site-wide residue processing has dropped by approximately 40 percent. This has been due to the halt of all but a nominal amount of dry residue processing in Building 707 as well as conduct of operations problems which led to a pause of operations (see site rep. report of July 28, 2000). The milestone for completing ash residue processing by December 31, 2000 is at risk based on recent production rates. (3-A)

Criticality Safety. DOE-RFFO directed Kaiser-Hill to incorporate engineered controls to the metal convenience container to be used in the Plutonium Stabilization and Packaging System to limit the number of plutonium metal buttons that can be placed in the container. (3-A)

Inner Tent Chamber Development. Development efforts continue for next generation Inner Tent Chambers (ITCs) to apply improved engineered safety controls for size reduction of gloveboxes and related equipment. ITC Phase I, Series 2 is a modified version of the initial ITC design that replaces sliding doors with glove ports, has an integral waste box, and will employ manual plasma-arc cutting. Installation in Building 771 has been completed and system testing is in progress. For ITC Phase II, incorporating remote manipulator arms to perform plasma-arc cutting, vendor demonstrations and training of RFETS workers on the system have been ongoing. A site rep. observed RFETS workers operating the system at the vendor this week. Efficient operation of the system will require substantial skill development for RFETS operators in properly positioning the glovebox, aligning and cutting with the plasma-arc torch, and removing the cut pieces to the waste box. The Phase II ITCs are to be assembled into Building 771 and Building 776/777 with startups planned for the early 2001 time-frame. (3-B)