

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 4, 2002

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending January 4, 2002

Radiological Uptakes in Building 771. On Thursday, RFETS externally reported that 2 radiological control technicians (RCTs) received uptakes of 1.6 and 0.3 rem CEDE, respectively, as the result of removing a small amount of dust and paint chips from a floor area in Building 771 in early October 2001. Also on Thursday, an investigation report was issued on this event by the RFETS radiological controls organization. The report states that the dust and paint chips were requested to be removed by workers preparing to paint the floor. The next day, the RCTs removed the dust and paint chips while crouching on the floor with dry, hand-held wipes without any respiratory protection being required nor any radiological air monitors in the room. After 10 minutes, air monitors in an adjacent room alarmed. Later, the RCTs asked for uptake checks.

This work was done under a Radiological Work Permit covering only tours, airborne monitoring equipment checks and "routine surveys." The investigation report does not, however, identify a potential work scope definition problem, and states "the team did not find any failures to meet procedural or Radiological Control Program requirements." The report does indirectly address the issue in identifying a corrective action to brief RCTs "regarding guidelines on when and to what extent RCTs are authorized to perform limited scope decontamination activities." The investigation report is being provided to the staff. The site rep. has also inquired with RFETS management on the timeliness of both internal reporting to site management and external reporting on this event. The site rep. will follow RFETS actions on this event. (1-C)

Recommendation 94-1/2000-1. Late last week, DOE-RFFO informed the DOE Office of Environmental Management (EM) that the May 2002 milestone to repackage all metal and oxides (except classified metal) into DOE-STD-3013 containers will be missed. DOE-RFFO now projects completion by October 2002 assuming a sharp increase in throughput in the Plutonium Stabilization and Packaging System and packaging of certain lower purity oxides as residues. DOE-RFFO expects that this information will be provided by DOE-EM to the Board. (3-A)

Conduct of Operations/Criticality Safety. As externally reported by RFETS this week, Building 776 personnel violated a posted criticality mass limit of 200 grams fissionable material when several waste items with a combined fissionable gram recorded value of 205 grams were packed into the drum. The workers knew they were exceeding 200 grams. The drum packing occurred in mid-December but the violation was not discovered until drum movement preparations this week. Deficiencies for this event bear similarities with certain nuclear material packaging/handling events in the other RFETS major nuclear facilities during the past year, in particular, workers not taking responsibility for complying with posted mass limits (e.g., see site rep. reports of December 29, 2000, January 5, 2001, April 20th, October 12th, and November 9th). As a result, Kaiser-Hill instituted another operational pause to again emphasize proper conduct of operations to personnel handling nuclear material including the expectation for workers to know the limit(s) and verify compliance when moving or packaging nuclear material. (1-C)