

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 21, 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 July 21, 2000

Work Control/Conduct of Operations. Problems continue (see our report of June 30, 2000) with crisp definition of work to be performed and developing, implementing, and adhering to safety controls based on sound, integrated activity-level hazard analyses. Kaiser-Hill and DOE-RFFO management continue to determine actions to be taken on their part. Examples follow:

A. In early July 2000, personnel without respiratory protection in the “doffing chamber” of a containment tent were exposed to high airborne contamination (estimated up to 20,000 DAC) during separation of a closure from a contaminated tank. Kaiser-Hill determined that this occurrence resulted from a number of informal (i.e., not evaluated for hazards) changes from prior work in containment tents, including: (1) keeping both roll-up doors to the doffing chamber open even though work had begun; (2) operating a portable air conditioning unit at the entrance to the doffing chamber; and in the case of tanks (3) new crew members changing the method for removing closure bolts.

B. A worker performing decontamination activities in an enclosure caused radiological contamination to become airborne alarming monitors and resulting in skin contamination. Management follow-up revealed that this decontamination activity was not authorized by the facility management and that the applicable radiological work permit (RWP) requirements for radiological control technician (RCT) coverage and maximum contamination levels were not followed.

C. A technician testing 55-gallon drum filters (external pressurization to check for clogging) did not have RCT coverage as required by the applicable RWP. While the line management hazard analysis screen determined that the activity was of low risk and no further hazard analysis was required, the RWP for this effort was changed in January 2000 to specify such RCT coverage with no apparent basis. (1-C)

Use of Robotics for Glovebox Size Reduction. Development work by Oceaneering International and their team of subcontractors continues (see our June 9, 2000 report). A cold demonstration of the robots performing plasma-arc cutting of a representative glovebox from Building 771 and transferring the cut pieces to waste boxes was performed this week at a subcontractor in Minnesota for RFETS management. All objectives of the demonstration were reported to be met. However, during the next several weeks, Kaiser-Hill will revisit the cost-benefit analysis for the robotics system as planned in Building 776. A full system demonstration, including the ventilated enclosure, is still planned for September 2000. (3-B)

Public Interaction. The site reps. met with the staff of the Rocky Flats Coalition of Local Governments to discuss site rep. activities. Major issues discussed included the Plutonium Stabilization and Packaging System startup and the progress in implementing Integrated Safety Management at RFETS.