DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 5, 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 May 5, 2000

Board staff members T. Burns, D. Ogg, and outside expert H.J.C. Kouts were on-site to review the RFETS criticality safety program.

Building 771/774 Revised AB Implementation. Kaiser-Hill completed an Independent Validation Review (IVR) of implementation of the revised Basis For Operation (BFO) for Building 771/774. The BFO revision incorporates controls and requirements to cover the full scope of deactivation including plasma-arc cutting activities for glovebox size reduction. The IVR team concluded that the BFO is generally well-implemented but identified some prestart findings. One finding was a failed demonstration of a yearly surveillance of supply to exhaust fan interlocks. While completing the surveillance, an exhaust fan controller failed causing exhaust dampers to shut. The operators attempted to manually open the dampers (based on conflicting flow indications) rather than secure the supply fans. During the few minutes taken to reopen the dampers, a substantial ventilation flow reversal to office areas occurred. Fortunately, no spread of contamination was detected. Kaiser-Hill management indicated to the site reps. that actions will be taken to ensure operators understand the need to secure supply flow in such situations. The site reps. will follow resolution of the IVR findings. (3-B)

Feedback and Improvement. Two workers received contamination on their hands, with one hand measured at 2400 decays per minute. They were radiologically surveying a plastic bag inside a 55-gallon drum whose contents were unknown at the time. The operation released airborne contamination activating the radiological air monitor. During the follow-up fact finding meeting, it was not adequately identified whether opening the drums and handling the contents were included in the defined scope of work under the operating procedure. The meeting also did not determine whether hazards and controls were adequately identified. Such shortcomings have been observed repeatedly by the site reps. (see site rep. reports of September 17, 1999 and March 17, 2000) and identified to RFETS management. The acting Deputy Manager for DOE-RFFO was present during the fact-finding meeting and agreed with the site rep.'s observations. (1-C)

Criticality Safety Program. The Board's staff reviewed the approach to criticality controls development, tracking, and implementation at RFETS. The staff noted that the RFETS program to be mature. Criticality safety evaluations reviewed were well organized and clearly identified which controls were associated with each contingency. The staff also noted significant criticality safety engineer floor presence and the apparent effectiveness of the "criticality safety officer" program in facilitating resolution of floor implementation issues with workers and other operations personnel. Areas for improvement were observed regarding traceability of controls between criticality safety evaluations, postings, and procedures, as well as the assessment plans for DOE-RFFO. The staff will provide a separate report to the Board. (1-C)
cc: Board Members