

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 30, 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 June 30, 2000

Conduct of Operations/Work Control. Several occurrences were reported this week that indicate continued problems with conduct of operations and work control at RFETS including procedural compliance and with adherence to RFETS requirements for planning and executing work (several site rep. reports have noted these issues over the past year). Examples include:

A. Building 707 Plutonium Metal Size Reduction - A criticality safety engineer review of a change to the size reduction procedure revealed that the metal shearing portion of the operation was not being performed to the procedure. The violations include skipping steps in the procedure designed to prevent an inadvertent criticality due to over-batching plutonium into a can. Building 707 management follow-up interviews revealed that fundamental concepts regarding adherence to procedures were not understood (verbatim compliance was required for this operation). Individuals stated that they considered "the intent of the procedure to be met."

B. Building 776/777 Complex Deactivation - During removal of loose miscellaneous items, a supervisor (with a radiological control technician present) opened a flange on a vacuum pump causing elevated airborne levels and contaminating his protective clothing and the floor area. This task was performed without authorization through the RFETS Integrated Work Control Program (IWCP) which requires specific work planning/hazard analysis for such a breach of a system.

C. Building 371/374 Maintenance - During demolition of a wall to support removal of a pump in the cooling tower facility, a worker inadvertently cut and ruptured a branch line for a fire sprinkler system. Follow-up by building management indicate supervisory instructions to ensure visibility of both sides of the wall during cutting were not followed by the workers. Moreover, the hazard analysis done for the job addressed general hazards only and neither defined the basic steps of the work nor analyzed specific hazards and controls as required by the IWCP.

In response to the Building 707 occurrence, Kaiser-Hill identified the following major actions in discussions with DOE-RFFO senior management: (1) stop all operations in Building 707 to have focused training in procedural adherence/compliance; (2) review nuclear operations site-wide to ascertain if similar procedural compliance problems exist; (3) for plutonium metal size reduction, revise the procedure to incorporate integrated work flow and criticality controls, and require a senior manager be present during all size reduction operations to verify procedural compliance; and (4) review independent/management oversight provided to nuclear operations.

DOE-RFFO requested that Kaiser-Hill evaluate instituting periodic pauses in nuclear operations to allow line management to obtain worker and supervisor input and fix any operational problems. Other actions regarding the state of conduct of operations and work control at RFETS are being determined by DOE-RFFO and Kaiser-Hill management. The site reps. will continue to follow these issues. (1-C)