

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 19, 2001

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending January 19, 2001

Corrective Actions. As previously reported, DOE-RFFO outlined certain safety issues in a letter to Kaiser-Hill resulting from a series of events and negative trends during the past several months. Kaiser-Hill continues to develop corrective actions. Near term actions to support resuming certain material handling operations are now planned to be presented to DOE-RFFO during the week of January 22nd, and the remainder of the action plan is to be presented shortly thereafter. (1-C)

Plutonium Stabilization and Packaging System (PuSPS). The PuSPS project completed system modifications allowing for stabilized oxide in furnace trays to bypass automatic convenience can fill steps and instead be manually scooped from the tray to the can and manually transferred to the packaging equipment. These modifications were tested and the PuSPS project has started a series of dry runs, drills and assessments as part of their readiness preparations. These preparations, along with furnace door modifications and installation of an enclosure at the fume cabinet, are expected to take until mid-February. At that time, the PuSPS project plans to declare readiness and Kaiser-Hill would start their Operational Readiness Review. (3-A)

Feedback and Improvement. As reported on October 27, 2000, during electrical equipment removal in Building 776, a worker cut into a 1-inch conduit containing an energized 480 volt line; fortunately there was no injury. A corrective action from that near miss event was to conduct a technical workshop on site-wide improvements to electrical safety, particularly with respect to deactivation and removal of electrical equipment. The workshop was conducted this week and actions to improve electrical safety were presented. Chief among the actions are new guidelines to maximize electrical isolation of whole areas of buildings prior to major electrical equipment removal, and a standardized work planning approach to ensure proper isolation points and voltage check points are specifically identified, recorded and independently verified. A key aspect of this effort is the potential for other facilities preparing to perform such deactivation activities (e.g., Building 707) to benefit from these lessons learned. (1-C)

Use of Robotics for Equipment Size Reduction. Since the initial vendor demonstration of the complete robotics system (as reported on November 17, 2000), Kaiser-Hill has been reconsidering the system costs and benefits. Recently, however, Kaiser-Hill stopped evaluation of Building 707 as the primary facility for deployment of the system and there is no active consideration of any options to deploy the system at RFETS. Other DOE sites (e.g., Savannah River and Hanford) have indicated interest in the system and site personnel have visited the vendor in Minnesota to observe a system demonstration. It will likely be a number of months before a decision is made on disposition and/or use of the system. A factor in such a decision will be the degree of success by the second generation (just started up) and third generation (starting in mid-2001) Inner Tent Chambers in size reducing gloveboxes and related equipment. (3-B)