

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 22, 2002

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending November 22, 2002

Plutonium Stabilization and Packaging System (PuSPS). As reported on November 8th, DOE-RFFO informed the DOE Office of Environmental Management (EM) that the new projected completion for metal and oxides in PuSPS is Summer 2003 assuming that a pending decision was made to repackage approximately 970 kg of low purity plutonium oxides for disposal at WIPP. DOE-EM has since formally directed DOE-RFFO to proceed with processing that material for disposition at WIPP. Repackaging of these oxides into pipe overpack components is now expected to start in Building 371 by late December.

As previously reported, Kaiser-Hill had been preparing to perform thermal pretreatment on plutonium oxides that may contain organics. These operations will consist of heating 2.5 kg batches of oxide on open hotplates at about 400 °C for one hour. The Kaiser-Hill Readiness Assessment (RA) for this modification to PuSPS operations was completed last week. This week, the RA team concluded that most preparations were satisfactory but identified pre-start findings that included: lack of validation that the expected thermal profile is reached; inadequate response to loss of ventilation in the glovebox; and lack of clarity in a posting containing criticality safety limits. Resolution of the RA findings continues. (3-A)

Falling Object Near Miss. During overhead dismantlement activities in Building 776, an individual was struck on the shoulder by a 4 ft long channel bar (weighing about 10 lbs) that had fallen about 18 ft after being cut in the overhead. Fact finding revealed that the bar had been cut by a worker without utilizing an appropriate method to capture the cut item (e.g., tie-off or a second person holding the item). This event was categorized by RFETS as an Unusual Occurrence near miss due to the potential for more serious injury (head protection beyond a “bump cap” was not required or in use). Corrective actions are being developed. (3-B)

Injection Dose During Decommissioning - Follow-up. As reported on October 18th, a worker received a small puncture wound to a finger while placing a small component into a waste box in the Building 776. A small stub of wire caused the puncture through a cut-resistant glove and 2 rubber anti-contamination gloves. Special bioassay results were received this week; the worker has been assigned an internal dose of 180 mrem CEDE.

As also reported, corrective actions included a review of practices for taping sharp/pointed areas on objects prior to handling (the work package did not call for taping of sharp/pointed areas). Building 776/707 management stated to the site rep. that work packages are being revised to include guidance to tape such sharp/pointed areas prior to handling and puncture-resistant gloves are being procured. Kaiser-Hill management also stated to the site rep. that a site-wide lessons-learned on this event will be issued. The lessons-learned will reference existing site guidance on puncture hazards and emphasize the need for work planning teams to identify and control these hazards. (3-B)