

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 13, 2002

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending September 13, 2002

Plutonium Stabilization and Packaging System (PuSPS). As reported on March 29th, Kaiser-Hill has been preparing to stabilize the inventory of oxides with less than 80% plutonium. A sub-population of these oxides had been identified as possibly containing organic impurities, a potential hazard during PuSPS furnace stabilization. Kaiser-Hill had been evaluating additional stabilization process controls to address the hazard and has concluded that a thermal pretreatment of these oxides is warranted. This thermal pretreatment involves heating 2.5 kg batches of these oxides on an open hotplate at 500 °C for 2 hours. This task is to be performed in a glovebox in a room adjacent to PuSPS. Authorization basis changes and work planning for this modification to PuSPS operations are in progress. RFETS management has determined that a Kaiser-Hill Readiness Assessment (RA) will be conducted to confirm readiness for this task. The RA is expected to start in mid-October. (3-A)

Annual Integrated Safety Management (ISM) Review. DOE-RFFO started their Annual ISM Review last week focusing on DOE-RFFO and started review of Kaiser-Hill this week. Field observations, document reviews and interviews are to be completed by late September and a report issued in October. (1-C)

Conduct of Operations. There have been a number of events since April that have indicated a failure of personnel to properly stop the operation and report when unsure or encountering an unexpected or deficient condition (see site rep. reports of July 26th, July 12th, May 31st, May 23rd, May 10th, and April 26th). The site rep. has discussed this issue with senior RFETS management during the past month. On Monday, the Kaiser-Hill's president sent a memo to all RFETS employees emphasizing the need to stop and report upon such situations and asking that project managers discuss this concept with RFETS personnel during the week. (1-C)

Startup of Building 460 Low-Level Waste (LLW) Storage. As reported on June 14th, Kaiser-Hill had been making preparations to begin (LLW) storage in the high bay of Building 460. Based on the planned inventory the facility is categorized as Hazard Category 2. A Kaiser-Hill RA to confirm readiness for these operations was completed in August. DOE-Headquarters authorized operations last week and LLW was moved into Building 460 this week. (3-A)

Decommissioning Technology - Tank Cutting in Building 774. The site rep. observed a stainless steel tank cutting operation using ultrahigh pressure (55,000 psi) water in Building 774. There are several such large, contaminated tanks (up to about 30 ft. long, 6 ft. diameter, 3/8 in. thick) in Building 774. The tanks are being cut around the circumference into sections to allow for handling, removal from the building, and shipment as LLW. The cutter is positioned and operates automatically through a preset cutting arc. With the "wet" cutting characteristic and slight vacuum applied to the tank sections, there has been little to no elevated room airborne levels during the cutting operation. (3-B)