

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 23, 2001

**TO:** J. K. Fortenberry, Technical Director  
**FROM:** D. F. Owen, RFETS Site Representative  
**SUBJECT:** RFETS Activity Report for the Week Ending February 23, 2001

**Plutonium Stabilization and Packaging System (PuSPS).** The PuSPS project has continued operational dry runs and drills; however, full implementation of all authorization basis controls related to PuSPS is taking longer than planned and a number of minor “punchlist” items remain. These issues have delayed, by about 2 weeks, final dry runs and line management demonstrations to the week of March 5<sup>th</sup>. As a result, declaration of readiness by Building 371 and the start of the Kaiser-Hill Operational Readiness Review is now projected for the week of March 12<sup>th</sup>. (3-A)

**Thermal Stabilization in Building 707.** DOE-RFFO personnel informed the site rep. on Tuesday that unusual glovebox pressure fluctuations were observed during two successive thermal stabilization runs on “oily” material in the J-25 furnace during the week of February 12<sup>th</sup>. The oily material resulted from glovebox clean-out activities. The site rep. was also informed that a verbal recommendation made by a DOE-RFFO subject matter expert (implement thermal hold points to allow combustible material to burn off at lower temperatures) prior to the runs had not been implemented.

The site rep. inquired with DOE-RFFO and Kaiser-Hill management as to what sampling/characterization had been done on this material. In particular, whether laboratory sampling/characterization had been performed along with review of results by subject matter experts to advise on the need for any additional safety controls. (Such protocols were put in place by DOE in early 1993 to address such organic materials; this is reflected in the public record of the Board’s deliberations on Building 707 resumption in early 1993.) Kaiser-Hill management indicated that no laboratory sampling/characterization of this specific material had been performed and did not have an immediate response on the disposition of the 1993 sampling/characterization protocols. Kaiser-Hill management placed a hold on planned thermal stabilization activities.

The Building 707 Basis for Interim Operation identifies the furnace overpressure/explosion hazard and a safety control stating: “Characterization/sampling to identify the presence of organics or other reactive materials to allow appropriate controls for furnace/stabilization operations.” It is not clear how this control was being implemented for the furnace operations.

The site rep. and staff discussed the above issues with RFETS management. Kaiser-Hill management stated that laboratory sampling/characterization will be performed for the remaining material to be stabilized in Building 707, results will be reviewed by subject matter experts and any additional, necessary controls implemented. DOE-RFFO and Kaiser-Hill management also indicated that a review of thermal stabilization practices subsequent to 1993 will be performed against applicable commitments and requirements and results incorporated into future thermal stabilization activities. The site rep. will continue to follow this issue. (3-B)