

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 20, 2001

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending April 20, 2001

Plutonium Stabilization and Packaging System (PuSPS). The Kaiser-Hill Operational Readiness Review (ORR) was completed this week. While the ORR team noted that the demonstrations of the stabilization and packaging operations were generally satisfactory, numerous findings and “weaknesses” were identified. Pre-start findings include items such as:

- lack of a process to vent or empty a non-compliant DOE-STD-3013 container as addressed in the Building 371 Basis for Interim Operation (BIO);
- inadequate demonstration of emergency drills with numerous deficiencies in radiological protection noted;
- failure to apply configuration management and work control processes prior to an engineer making an adjustment to a furnace controller to change the temperature for oxidizing (prior to full stabilization) small plutonium metal pieces from 500 °C to 600 °C (the site rep. and staff will review the technical basis for this change);
- deficient level of PuSPS knowledge by utility support personnel.

The Kaiser-Hill ORR report has been provided to staff for review. At week’s end, Kaiser-Hill line management was working to resolve the ORR findings. DOE-RFFO line management personnel have identified additional issues, however, that need to be resolved by Kaiser-Hill line management prior to starting the DOE ORR. These include: implementation of BIO controls regarding characterization of oxide material to be stabilized; adequacy of overall configuration management for PuSPS given the furnace adjustment issue noted above and other recent problems; and certain items identified by the ORR as “weaknesses” that DOE-RFFO believes should be findings requiring corrective action. As a result, the DOE ORR will not start until the week of April 30th, at the earliest. (3-A)

Building 371 Conduct of Operations/Criticality Safety. Results of “fact-finding” of a March 28th improper movement of nuclear material were made available this week. The work crew discovered that they had moved two 35-gallon drums containing plutonium standards to a room that was not authorized for storing 35-gallon drums from a criticality safety standpoint (they had thought they were moving 30-gallon drums which were authorized). Upon this discovery, the work crew decided to move the drums back to their original location without stopping, as required, and obtaining Building operations and criticality safety authorization. This event came to light following a security guard observing the crew’s actions and noting a safety concern to his management. A number of management and personnel actions are being taken to address this latest in a series of operational problems in Building 371 (see March 30th site rep. report). (1-C)

Site-wide Corrective Actions. As previously reported, DOE-RFFO outlined certain safety issues in a January letter resulting from a series of events and negative trends during 2000. DOE-RFFO and Kaiser-Hill have been working to complete definition of corrective actions. Kaiser-Hill formally issued their Site Safety Improvement Plan this week; the plan has been provided to staff.