

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 11, 2002

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending October 11, 2002

Response to the Board Letter of March 19, 2002. The Board's letter forwarded to the DOE Office of Environmental Management (DOE-EM) staff observations on activity-level work planning and DOE-RFFO oversight of activity-level work planning. The DOE-EM June 25th response identified actions to address the observations. As reported on September 27th, some progress had been made by Kaiser-Hill in establishing a mentoring program to improve work planning but little progress had been made by DOE-RFFO in implementing actions to perform proper oversight of work planning. Per the DOE-EM response, RFETS management briefed the Board via video-conference this week on these actions. Since many of the actions were either completed late or not completed, the effectiveness of those actions could not be assessed as intended by the DOE-EM response. DOE-RFFO management noted the lack of tracking and review of the actions but stated that such tracking/review will be performed going forward. (1-C)

Recommendation 94-3. In mid-1999, following closure of Recommendation 94-3, *Rocky Flats Seismic and Systems Safety*, DOE-EM committed to making a decision on completing upgrades to Building 371 nuclear material storage areas based on various criteria related to shipment and disposition of special nuclear material. The dates for such a decision have been deferred since late 1999. This week, DOE-RFFO proposed to DOE-EM that the criteria are now satisfied and requested that the Board be informed of DOE's intention not to proceed with the upgrades. (1-C)

Conduct of Operations. This week, it was discovered that Building 707 personnel exceeded the criticality safety mass limit of 325 grams plutonium in packing transuranic (TRU) waste items into two Standard Waste Boxes (SWBs). The two SWBs contained several low mass waste items, but each SWB also contained separate chambers of a dismantled furnace with plutonium holdup estimated between 700 to 1100 grams each. Fact-finding determined that the personnel had packed these furnace items into the SWBs in late September. The packing personnel had misread and used a plutonium per area value of 21 grams/ft² (a gamma scan value used in classifying items as low-level waste) as 21 grams for each item, instead of using the 95% confidence mass value as required. The "waste verifier" did not properly perform an independent verification of the mass values used during the packing operation as required by procedure and training.

This event is similar to a 55-gallon TRU waste drum overpack occurrence noted in the site rep. report of September 27th. As a result of the lack of disciplined waste packing operations, Building 707/776 Project management suspended new TRU waste packing and onsite transfer operations pending corrective action. Corrective actions include limiting personnel allowed to perform TRU waste packing in each crew, procedure enhancements, retraining with emphasis on proper independent verification by "waste verifiers," and promulgation of a site-wide lessons learned bulletin (also with emphasis on proper independent verification). (1-C)