

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 16, 2001

TO: J. K. Fortenberry, Technical Director

FROM: D. F. Owen, RFETS Site Representative

SUBJECT: RFETS Activity Report for the Week Ending November 16, 2001

Plutonium Stabilization and Packaging System (PuSPS). A DOE-STD-3013 container of oxide completed late last week failed the Loss-on-Ignition (LOI) test (1.3% moisture vs. the 0.5 % limit) and the outer can weld for this container was rejected. This is only the second container with an LOI failure but the first one that also had an outer can weld rejection. This container must therefore be emptied or vented within 50 days per the Building 371 Basis for Interim Operation. Overall, however, this was one of the most productive weeks for PuSPS with about 28 DOE-STD-3013 containers being completed. (3-A)

Response to the Board Letter of March 23, 2001. As noted on September 7th and 21st, Kaiser-Hill was revising their "Lessons Learned" that documents breakdowns in safety management during the thermal stabilization event in February (failure to implement an authorization basis control to sample/characterize feed material). The site rep. and staff discussed a few observations on the revised Lessons Learned with RFETS personnel. The site rep. and staff believe the revisions generally cover the errors (though one error was still not addressed) and breakdowns related to the event. The primary site rep. and staff observation was that the Unreviewed Safety Question (USQ) process training course (and the Lessons Learned) did not clearly cover a key concept covered in the RFETS USQ procedure for completing a nuclear safety screen of a proposed/revised activity. Specifically, that it is incumbent on the nuclear safety analyst to properly identify those parts of the authorization basis that apply to the specific activity under review. RFETS personnel indicated that they will address the staff's observations. (1-C)

Building 771 Deactivation. Late last week, a Building 771 radiological control technician (RCT) received skin contamination (up to 24,000 disintegrations/minute per 100 cm²) after assisting a worker with minimizing a spill of oil from a large tank sight gauge that was being dismantled. The RCT, assigned to monitor the evolution, helped the worker move the gauge and oil seeped through his standard anti-contamination clothing. The worker was wearing required chemical-resistant sleeves and apron; however, the RCT was not required to be in chemical-resistant clothing. Certain actions have been taken in Building 771 calling for RCTs that may respond to an upset condition to have the same level of personal protective equipment (PPE) as the workers. The site rep. has inquired with DOE-RFFO and Kaiser-Hill as to whether proper PPE for RCTs is being addressed site-wide to determine any actions to preclude recurrence. (3-B)

Emergency Preparedness. The site rep. observed a site-wide emergency exercise this week. The exercise involved a fire from a ruptured propane line in a low-level waste storage tent. While no waste containers were simulated as breached, the exercise involved potential material release and dose estimation by hazard assessment personnel in the Emergency Operations Center as well as radiological field sampling. Proper upwind incident command location, fire response, site-wide sheltering, and treatment of injured personnel were noted by exercise evaluators. (1-C)