

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 6, 2001

TO: J. K. Fortenberry, Technical Director

FROM: D. F. Owen, RFETS Site Representative

SUBJECT: RFETS Activity Report for the Week Ending July 6, 2001

Plutonium Stabilization and Packaging System (PuSPS). Since startup in mid-June, Kaiser-Hill has packaged plutonium into 11 DOE-STD-3013 containers including the first container with stabilized plutonium oxide last week. Three containers with plutonium metal, however, had issues with the outer can weld; two containers due to failed visual inspection of the weld (splatter/bead width and a void, respectively) and one container due to low-out-of-specification shield gas flow (note: the failed containers passed helium leak checks). Investigation of the weld failures is in progress and the failed outer cans will be opened and inner cans repackaged. (3-A)

Response to Board's Letter of March 23, 2001. This letter forwarded observations on safety management at RFETS following Building 707 thermal stabilization activities where unusual furnace glovebox pressure fluctuations were observed with subsequent determination that an authorization basis safety control was not being implemented. The Board requested that the DOE Office of Environmental Management (DOE-EM) inform the Board of corrective actions identified by DOE-RFFO and Kaiser-Hill as a result of this event. Last week, DOE-RFFO transmitted the RFETS response that includes DOE-RFFO and Kaiser-Hill corrective actions to DOE-EM and proposed briefing the Board on the response. DOE-RFFO also formally requested Kaiser-Hill to complete their corrective actions as scheduled. The RFETS response is under review by DOE-EM and is being provided to the Board's staff. (1-C)

Tank Decontamination Technology. As previously reported, Building 371 is working to deploy a system to decontaminate stainless steel tanks (to meet low-level waste criteria) through use of a cerium acid solution. The cerium solution is mixed with low pressure steam, passed into the tank and through a nozzle to coat the inner tank surface and perform the intended surface etching/decontamination. Following recent "cold" demonstrations (see site rep. report of April 6, 2001), Kaiser-Hill has been preparing a set of 8 contaminated tanks in Building 371 for the initial use of this technology at RFETS. Tank decontamination is being delayed, however, due to the unexpected amount of time being taken to complete removal of the tanks' raschig rings; in particular, the raschig rings below the tanks' access ports. Raschig ring removal is currently being performed by workers using supplied air for respiratory protection and manual tools to remove the rashig rings through the access port. Kaiser-Hill is evaluating radiological data to support downgrading to respirators and use of a vacuum removal tool to improve efficiency in removing the raschig rings. (3-B)

cc

Board Members