DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 26, 2002

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending July 26, 2002

Plutonium Stabilization and Packaging System (PuSPS)/Conduct of Operations/Work Planning. When the outer can weld of a DOE-STD-3013 can is identified as a failed weld (e.g., via leak check failure or visual exam indication), the outer can is cut open and the inner can repackaged into a new outer can. Up until late May, this can cutting operation had been successfully conducted (about 170 times) in a contamination cell (C-Cell). The operation was then changed to allow for the outer can to be cut open outside of a C-cell (and had been performed about 40 times since).

This week, while cutting open a DOE-STD-3013 outer can with a failed outer can weld, the bandsaw cut through a small area at the top of the inner can. This was noticed after having turned over the outer can and the inner can sliding out; no contamination checks had been required prior to removing the inner can. Subsequently, radiological contamination checks revealed small areas of contamination on the inner can table and bandsaw (up to about 34,000 disintegrations per minute/100 cm^2). Personnel were evacuated from the PuSPS room, except for nuclear material surveillance personnel who had donned respirators. About 40 minutes later, radiological air monitors alarmed but two of the material surveillance personnel did not exit the room per the required response to such alarms.

Successful conduct of this cutting operation relies on the inner can bottom resting flush with the outer can bottom in the upright position prior to being positioned on a slight positive incline in the bandsaw fixture. This allows for about 0.25 inch of outer can length within which to cut the outer can without also cutting the top of the inner can. During fact-finding on this event, the operator who performed the cut noted that he had observed prior instances of inner cans sticking in the outer can and that he had at times needed to use a mallet to remove the inner can. He had, however, apparently not reported such an unusual/unexpected condition to management.

Following site rep. and DOE-RFFO inquiry after Kaiser-Hill fact-finding on this event, it was determined that while procedures and radiological evaluations had been revisited/revised to reflect the option to do the operation outside the C-cell, the Job Hazard Analysis (JHA) was not revisited/revised to reflect this change. The site rep. discussed the worker's lack of reporting the unusual/unexpected inner can sticking, lack of revisiting/revising the JHA (as well as fact-finding not identifying the issue), and workers' failure to exit the room upon an air monitor alarm with senior DOE-RFFO and Kaiser-Hill management. The site rep. will follow development and implementation of corrective actions. Kaiser-Hill has stopped outer can cutting and intends to remove the option to perform the cutting operation outside of the C-cell. (1-C)

cc
Board Members