

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 12, 2001

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending October 12, 2001

Work Control/Conduct of Operations. On Wednesday, a chemical odor was detected throughout most of Building 776 and several personnel noted symptoms including nausea and coughing. A Building evacuation was ordered. Initial fact-finding revealed that a group of individuals, assigned to Building 559 (an analytical laboratory), had been removing equipment from the mass spectrometry lab in Building 776 during the past several weeks. This was the understanding of the activity scope by Building 776 operations management. One individual, however, had also been venting small bottles/cylinders containing various organic compounds in the mass spectrometry lab area without having performed work/safety planning per the RFETS Integrated Work Control Program nor obtaining facility operations authorization per the RFETS Conduct of Operations Manual.

There is no indication of any specific nuclear/radiological issues with this occurrence. Fact-finding and development of reentry/recovery and corrective actions are in progress, including actions to address the obvious work control and conduct of operations failures and potential chemical safety program failures. DOE-RFFO intends to conduct a formal investigation. (3-B)

Building 371 Nuclear Material Handling. Prior to placing containers of repackaged dry residue material onto storage racks in preparation for nuclear material assay, the work crew failed to properly perform a required surveillance (including calculation of a mass estimate) to ensure that the containers met the posted criticality mass limit (1000 grams). This event revealed procedural and training deficiencies that are being addressed. The site rep. will continue follow-up. (3-A)

Safety System Damage Follow-up. As reported on September 21th and 28th, during removal of a wall in Building 707, a reference line to a differential pressure sensor was inadvertently cut. It was noted that while engineering personnel identified the need for the adjacent differential pressure sensor to remain operable during the wall removal, engineering personnel did not identify that the reference line was in the wall either as part of the engineering design input or as part of review of the activity Job Hazard Analysis. Corrective actions relative to the engineering input for this work included review of similar work efforts for potential compromise of safety systems and briefings to engineering personnel on the problems identified for this event.

The site rep. inquired about RFETS requirements/guidance for engineering personnel regarding making a determination that safety systems would not be compromised during Building deactivation and decommissioning (D&D) activities. Kaiser-Hill management indicated to the site rep. that while there is explicit guidance to determine what safety systems need to remain operable during D&D work planning, there is no explicit guidance to determine whether safety systems are being compromised or affected as part of D&D work planning. As a result, Kaiser-Hill management stated that the RFETS Site Engineering Process Procedure will be revised to add explicit guidance on making such a determination during D&D work planning. (3-B)