

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 30, 2002

TO: J. K. Fortenberry, Technical Director
FROM: D. F. Owen, RFETS Site Representative
SUBJECT: RFETS Activity Report for the Week Ending August 30, 2002

Plutonium Stabilization and Packaging System (PuSPS). During the evening shift on Wednesday, small metal pieces were placed in a tray in preparation for furnace oxidation while a loaded ingot can was also present in the material preparation glovebox. This was a violation of a criticality safety requirement in the procedure governing this task and the processing of these metal pieces to oxide. PuSPS operations were stopped pending completion of fact-finding and development of corrective actions. (3-A)

Work Planning/Feedback and Improvement. As reported on July 12th, a worker cut a pressurized instrument air line to a pneumatic control panel in Building 776. Fact-finding had identified that the pneumatic control panel removal was added late in work planning without a detailed walk-down; the engineer assumed the panel had no pressurized air lines. As also reported, the site rep. had inquired with DOE-RFFO on the status of actions in response to a cut of a pressurized machining coolant line in April (see April 19th site rep. report). Actions were to have been taken in Buildings 776/707 regarding joint line management/engineering walk-downs of engineering input and physical checks by work crews on piping systems prior to removal.

DOE-RFFO asked Buildings 707/776 management about the status of the above actions in July. It was determined that no formal action calling for joint line management/engineering walk-downs to verify engineering input had been taken and such walk-downs were not occurring as expected. Subsequently, Buildings 707/776 management issued written direction to operations personnel to perform such walk-downs and reemphasized the need for proper system isolation checks for their activities. Such joint walk-downs to verify engineering input appear to be a good practice, but this has not been disseminated site-wide. The site rep. has inquired with DOE-RFFO management on site-wide dissemination of this practice. (1-C)

Nitric Acid Spill in Building 371 - Followup/Work Planning/Feedback and Improvement. As reported last week, during removal of an air-operator from a valve in a nitric acid line, a small amount of nitric acid spilled and nearby personnel reported symptoms of nausea. The air-operator was being removed from the valve bonnet so that the valve could be manually opened to support draining of the line. It was not intended to breach the valve bonnet-to-body connection. Fact-finding revealed that work planning walk-downs were focused on the draining evolution, lineups, etc., and did not address details for removing the air-operator. The work procedure did not provide specific instructions for properly removing the air operator. The worker had assumed the four nuts he removed held the air operator to the valve bonnet only, but the nuts also held the valve bonnet to the valve body. While this was not a troubleshoot/repair activity involving a pressurized system, this event has some similarity to a prior inadvertent steam system breach event (see site rep. report of December 21, 2001). A site-wide lessons learned and other corrective actions are in development. (3-B)