

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 29, 1999

**TO:** G. W. Cunningham, Technical Director

**FROM:** M. T. Sautman

**SUBJECT:** RFETS Activity Report for Week Ending January 29, 1999

**Year 2000.** Rocky Flats completed conversion (i.e., renovation, validation, and implementation) of all DOE Mission Critical (a.k.a. mission essential) systems on January 27. Contingency plans still need to be developed for these systems. In response to the Board's reporting requirement, the Site Rep met with the RFFO Y2K Project Manager and Y2K contractor personnel to discuss which systems are safety-related. Two DOE Mission Critical, 16 RFETS Critical, and 2 RFETS Non-Critical systems were identified as safety-related systems.

**Work Control.** A recent incident illustrates three continuing problems at RFETS:

- identified controls not being implemented,
- workers not stopping work when a situation unexpectedly becomes more hazardous, and
- radiation control technicians (RCT) focusing on alpha contamination while neglecting penetrating radiation.

In B371, workers opened a drum of unpulverized sand, slag, and crucible inside a contamination cell. There were several indications that the material inside the drum might have a high dose rate:

- the drum was lead lined,
- the drum traveler listed 39 g of Am,
- the can was inside a lead pig, and
- the can had a label listing a dose rate of 380 mrem/hr.

Lead lining and lead pigs are not expected packaging configurations for this residue. In spite of these indications, the RCT did not bother to measure the dose rates to see if the RWP's suspension limit had been exceeded. In fact, there were no instruments in the contamination cell to measure the dose rates. The drum was unpacked and the can placed inside a glovebox. A worker's electronic pocket dosimeter alarmed while the can was put inside the glovebox. When the can's dose rate was measured through the gloveport later that evening, it was found to be 3.5 rem/hr (practically a contact dose rate). After repeated questioning by the facility representative, a RCT finally measured the dose rate the following afternoon to see if the RWP suspension limit had been exceeded. The can's 340 mrem/hr dose rate at 30 cm was more than three times higher than the RWP's 100 mrem/hr suspension limit. The three workers' thermoluminescent dosimeters indicated doses of 34, 68, and 94 mrem. (Please note that this is year-to-date and not just from this incident). A subsequent investigation also found that workers were not repacking drums identified by the engineers, but any drum they found with the listed residue code. This drum was not designated for repacking. Corrective actions are being started to make sure the proper drums are repacked and that workers know how to react when an anomaly is encountered. The Site Rep has discussed this issue with senior K-H and RFFO managers.

**State of the Flats Meeting.** At the annual State of the Flats meeting Wednesday night, the Site Rep gave a presentation about the Board's perspective on Rocky Flats' performance in 1998. The responses received on the presentation were positive. The meeting was attended by federal, state, county, and municipal politicians and their staffers as well as many other stakeholders.

cc: Board members