

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 5, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending July 5, 2002

The site rep was in training Monday and Tuesday of this week.

Plutonium Facility (TA-55): The following are noteworthy:

- C On Monday (7/1/02), DOE signed out its response to the Board's letter on the new Pu-238 Scrap Recovery Line (4/23/02). To the site rep's knowledge, DOE and LANL have pursued few, if any, safety improvements in response to the Board's letter – such as, full consideration for engineered controls over administrative controls, even for those administrative controls that DOE approved as Safety Class. Also, the DOE and LANL plan is to incorporate those administrative controls into the Technical Safety Requirements during the next normal revision, not prior to startup of the new line (i.e., September 2002).
- C The LANL readiness assessment (RA) for the new Pu-238 Scrap Recovery Line starts next week. The DOE RA is expected in early to mid August. DOE and LANL appear to be placing a high reliance on the RA teams identifying any safety issues, not only in operations, but also in the design and the authorization basis areas.
- C Last Thursday, personnel inadvertently dropped a double-contained can of plutonium oxide during a bag-out operation. While the can remained intact, the dispersed contamination from the can's surface was sufficient to set off continuous airborne monitors (CAMs) in several rooms, leading 15 people to evacuate these rooms to the corridor. Two individuals had low-level positive nasal smears (i.e., anticipate minimal health consequences). The site rep understands that personnel involved did not confirm the integrity of the bag-out bag prior to the operation, as required by procedure.
- C Last Friday, PF-4 (plutonium operations) had a partial loss of ventilation when five fan motors tripped during maintenance on the control system. Zone 1 ventilation (i.e., for gloveboxes) continued operating. LANL is investigating to determine the cause.
- C Site rep weekly 6/21/02 reported polyethylene piping for the Fire Protection Yard Main Replacement Project that unexpectedly fractured while it was being cut. The site rep now understands that the piping has normally been cut with a chain saw but was cut in this case with a regular saw (i.e., sharper notch). The piping vendor has reviewed the fractured piping, observed that the polyethylene piping can fail in a non-ductile manner in certain instances of high localized stress, and believes that the fracture surface appearance does not indicate an anomaly. As an independent check, LANL has also had a Savannah River Site (SRS) piping expert review the vendor's report. That expert observed that the reported strength properties are within specification and that the fracture shear area was comparable to the cleavage area, indicating ductile behavior. DOE and LANL are pursuing closure of this question.