

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 9, 2004

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending January 9, 2004

Plutonium Facility (TA-55): This week, TA-55 began decon of the room contaminated by Pu-238 last August (site rep weekly 8/8/03). The job was planned and the work released via the new interim work control process. Controls selected are appropriate. Workers were instructed to inspect containers before moving them. TA-55 still needs to complete a Unreviewed Safety Question (USQ) before removing containers for access to decontaminate the cages. Relatedly, DOE Office of Enforcement plans in early February to conduct an on-site investigation into the contamination event.

Radiological Protection: The NNSA Site Office has requested LANL to promptly submit interim compensatory measures that address compliance issues with the Occupational Radiation Protection Rule (10 CFR 835). LANL Audits and Assessments identified the issues in a partial assessment in early November and reported their findings in late December. They plan to assess all elements of the Rule in one-third increments during the next 3 years.

The LANL team concluded that the radiation protection program generally implements the elements of the Rule that were reviewed; however, weaknesses exist in communicating radiation hazards and controls to workers and in meeting qualified training standards and record-keeping requirements. They observed that, without communicating and controlling the hazards and without providing qualified training, the laboratory cannot ensure the safety of workers and compliance with regulations. The team did identify noteworthy practices, particularly the quality management efforts in the radiation protection services group. The site rep observes that the training and qualification issues here are similar to those identified during a LANL institutional training review last fall. Issues with communication of hazards and controls also drove NNSA and LANL to pursue the interim integrated work control improvements currently underway (site rep weeklies 10/17/03, 12/19/03).

Authorization Basis (AB): In November 2003, the NNSA Site Office approved LANL proposed categorization of 11 environmental sites as Hazard Category 2 or 3 nuclear facilities, and requested LANL to perform a USQ evaluation on another 12 sites that are within the boundaries of existing nuclear facilities. One other candidate site is still being evaluated. LANL proposed these facility classifications after reviewing about 900 potential environmental release sites. The new Hazard Category 2 (HC-2) sites include material disposal areas in TA-21, TA-49, TA-50 and an underground spent resin tank in TA-53. The new HC-3 sites include material disposal areas in TA-21 and TA-54, sodium storage tanks in TA-35, former liquid disposal areas or treatment sites in TA-10 and TA-35.

Los Alamos Neutron Science Center (LANSCE): NNSA and LANL consider LANSCE to be a non-nuclear facility with exceptions: the 1L spallation target and certain actinide experiments in the Lujan Center and an inactive target station in Area A are considered HC-3. LANSCE is governed by four separate AB documents – 3 BIOs and an interim safety assessment – approved between 2000 and 2002. LANSCE appears to be compliant with this AB. They plan to submit an integrated AB this summer.

The NNSA Site Office has identified that LANSCE has not yet addressed all the recommendations in a Fire Hazard Analysis (FHA) prepared in 2002 after the AB documents were approved. The main open issue appears to be combustible loading in the Lujan Center – due to 8 tons of bare polyethylene shielding surrounding the 1L target's thick steel shield. LANSCE is assigning higher priority now to the remaining FHA recommendations and is planning to clad the polyethylene when funds are approved.