

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 7, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending October 7, 2005

Plutonium Facility (TA-55): On Wednesday (10/5), the NNSA Site Office (LASO) submitted issue closure packages to NNSA Headquarters (NA-10) and recommended startup of one trailer on the safeguarded trailer pad. This follows LASO and LANL resolution of open trailer fire protection issues early last week and NA-10 approval of the trailer fire protection exemption last Wednesday (9/28).

Last Friday (9/30), LASO approved startup of TA-55 enhanced external security measures before completion of formal verification that safety basis controls for these measures were in place; startup was nearly immediate to support secretarial-level security commitments made in 2003. The LANL management self-assessment (MSA) started in earnest this Monday (10/3) and was completed Thursday (10/6). The LANL readiness assessment (RA) is expected to start and finish next week.

Startup before verification creates a vulnerability that in this case was avoidable: the MSA previously began on Sep 12th with ample time, but then aborted two days later while LASO reconsidered the level of readiness review – resolved on Sep 28th. During this period, LANL recognized a new major accident scenario, complicating matters, and appropriately proposed TSR modifications on Sep 27th. LASO approved these on Sep 29th. When LASO approved startup on Sep 30th, LASO also restricted LANL from implementing some of the enhanced security measures, apparently due to lingering safety concerns. At present, the controls look adequate for the current security measures, but the expedited process used was less than satisfactory and increases the probability that something was missed.

Critical Experiments Facility (TA-18): LANL has completed characterization and packaging of material requiring Security Category I/II; there are few of these items remaining to be shipped, and they will be shipped once NA-10 authorizes startup of the TA-55 safeguarded trailer pad.

LANL has stopped work on Comet and is shifting attention to preparing SHEBA to resume delayed-critical operation and to start burst-mode operation; LANL's ability to successfully conduct these operations at TA-18 is subject to appropriate planning, priority, and support. Looking ahead, the future for DOE criticality training and experimental capability is the proposed Critical Experiments Facility (CEF) at the Nevada Test Site. The Energy Systems Acquisition Advisory Board (ESAAB) met this week to consider Critical Decision-2 for the CEF Project; the outcome is unknown.

Sigma Complex (TA-3-66): On Monday (10/3), a Sigma employee driven by program requirements singlehandedly removed a heavy press from a hood, surveyed it with a meter, and found it lightly contaminated with depleted uranium. He then attempted decon, tagged the press as radioactive, and moved it into a corridor where a radcon tech found it on Wednesday. LANL is investigating. Sigma is one of a class of facilities that receives little federal and contractor oversight; such oversight might detect vulnerabilities without relying on events such as this to flag issues (site rep weekly 8/12/05). This particular event would likely have received little attention except for increased contractor sensitivity due to the Am-241 Type B investigation underway. It warrants study since it reveals multiple work-control issues, some of which appear traceable to latent organizational weaknesses.

Chemistry and Metallurgy Research Building (CMR): CMR is inventorying and removing legacy hazardous chemicals and, this week, found three containers of shock-sensitive material. LANL Hazmat responded, and the containers are being deliberately and safely dispositioned.