

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 11, 2008

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending April 11, 2008

Von Holle was on site this week attending an Enhanced Surveillance Campaign meeting.

Federal Oversight: This week, LASO submitted to NNSA headquarters (NA-10) the LASO-LANL interim corrective action plan developed in response to last year's DOE Office of Independent Oversight (DOE-HSS) review. LASO noted that LANL took immediate actions in response to safety system deficiencies and that this plan builds on those immediate actions. The plan will be finalized and submitted for approval after final headquarters' review (site rep weekly 2/15/08).

Also this week, in response to a Special Report Order (10 CFR 820.8(b)), LANL submitted a report to NNSA headquarters (NA-1) on the causes and the corrective actions for the CMR and TA-55 contaminated puncture wounds of January 2007. LANL observed that a formal corrective action plan is in place, many of the actions are completed, and an effectiveness evaluation has been scheduled for July and August (site rep weeklies 1/11/08, 12/14/07, 12/7/07).

Emergency Management: The postulated highest consequence nuclear accidents at LANL are fire-related. TA-55 responded appropriately to the overheated glove-box during furnace operations on Mar 27th; however, there is a clear need to improve the TA-55 fire pre-plan. Based on site rep observations of drills and exercises last year, this need may not be limited to TA-55. In addition to resources, better definition of possible responses during a fire and of criteria and timing for reentry need consideration.

LANL and the fire department's joint capability to respond to radiological events – such as multiple contaminated, injured people or a fire coupled to radioactive material – has not been well demonstrated recently. Relatedly, the 2004 baseline needs assessment is overdue for update, required every 3 years by DOE O420.1B, *Facility Safety*; also, NNSA and Los Alamos County continue to negotiate on the fire department contract (ref: Board letters 2/1/07, 5/21/05; site rep weeklies 9/28/07, 11/24/06).

Electrical Safety: An electrical disconnect box at the Radioactive Liquid Waste Treatment Facility was recently found to contain a length of metal conduit deliberately installed in place of an electrical fuse. The circuit did have over-current protection upstream, but laboratory management is appropriately treating this discovery as a serious event. The institutional electrical safety committee has been consulted and a plan is being developed to perform sampling inspections to characterize the extent of condition. In addition, this event appears to be spurring action to catalogue, prioritize and systematically address other legacy electrical code compliance issues and known deficiencies.

Los Alamos Neutron Science Center (LANSCE): LANL has proposed a set of experiments be conducted at LANSCE that involve parking a small truck with up to 200 g plutonium-equivalent within a four-sided detector bank. LANL did not propose any additional controls other than an inventory limit, although additional controls (e.g., high-quality containerization) appear warranted.