

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 11, 2008

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

Contaminated Puncture Wound Followup: Pursuant to 10 CFR 820.8(b), *Special Report Orders*, NNSA has directed LANL to submit a report within 90 days on the causes and the corrective actions for the CMR and TA-55 contaminated puncture wounds of January 2007. NNSA and the DOE Office of Enforcement will then evaluate the effectiveness of the actions taken (site rep weekly 12/7/07).

Federal Oversight: On December 20th, the NNSA Site Office issued the Performance Evaluation Plan (PEP) for FY08. The PEP includes performance based incentives (PBI) and for the first time defines award term measures that would allow LANS to earn a one year extension to the prime contract. Incentivized objectives for FY08 include: • manufacturing 10 diamond stamped pits; • strengthening and exercising integrated nuclear planning capabilities; • formalizing plans for CMR facility consolidation and life extension; • continuing, and in some cases accelerating, implementation of Formality of Operations; • developing system design descriptions for safety-significant systems; • performing system assessments and developing system health reports for safety-class systems; • achieving timely implementation of new safety bases, including TA-55; • improving the effectiveness of integrated work management; • completing high priority corrective actions on time.

Transuranic (TRU) Waste Operations: LANL has requested NNSA input this week on a proposed safety basis strategy for Area G; LANL intends to submit a new safety basis by the end of February and to implement the new safety basis, in parallel with NNSA review, by the end of June. Operations to be considered include not only drum characterization, storage, and movement, but also TRUPACT mobile loading, underground waste retrieval, drum repackaging, and large-item (e.g., glove-box) size reduction. LANL intends to submit a basis for interim operation (BIO), continue reliance on containers as the principal engineered control, and increase reliance on specific administrative controls (SACs), such as restrictions on vehicle access, combustibles, and drum storage array arrangement.

The expedited timing is driven by several factors. The current Area G safety basis (2003) is not fully implemented; LANL views efforts would be better spent accelerating implementation of a new safety basis. Under the current safety basis, Area G is postulated to have some of the highest-consequence accident scenarios of any LANL nuclear facility, but Area G has few engineered controls. LANL believes that a reevaluation of the accident scenario suite using the new DOE standard (DOE STD-5506) would reduce predicted unmitigated off-site consequences by an order of magnitude (i.e., to about 120 rem); while this still exceeds the DOE evaluation guideline (25 rem), it changes the perspective on the risks and the level of mitigation needed from controls. Area G needs a safety basis closely tailored to expedited TRU waste de-inventory and shipment, to support completing TRU operations by 2012 and closing Area G in 2015, as required by the New Mexico Consent Order.

Some of the more significant safety concerns in Area G involve the high-activity drums (325), the unvented drums (~53), and the unvented, high-activity drums (~10), common to both sets. LANL continues to make progress in remediating and shipping the set of 235 high-activity drums discussed in the Deputy Secretary's letter of Apr 9th, 2007. On Nov 30th, NNSA approved a justification for continued operation for movement, segregation, and storage of unvented drums. On Dec 13th, LANL proposed an Area G safety basis addendum for remotely-controlled venting of unvented drums, necessary to support the high-activity drum campaign (site rep weeklies 11/16/07, 10/26/07, 10/5/07).