

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 17, 2016

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending June 17, 2016

Transuranic Waste Facility (TWF) Project: Last Friday, the NNSA Field Office Manager approved LANL's request for relief from previous directed actions in order to allow for a revised hazards and accident analysis (see 5/27/16 weekly). LANL management believes this approach has the potential to derive a revised control set, including the possibility of no longer crediting the fire suppression system. As part of the approval, the NNSA Field Office also requested a strategy to accomplish submission and approval of the revised approach in the 100 % Documented Safety Analysis by the end of this August.

Plutonium Facility–Emergency Management: On Wednesday, Plutonium Facility personnel conducted their annual nuclear criticality exercise. This year's scenario examined the response to a pulsing slurry system, one heavily exposed individual with radiation sickness, and one non-viable individual that remained at the scene of the accident. Initial feedback from players and controllers indicated problems with the annunciation of alarms in several buildings, inattentiveness of workers to a fellow injured worker, some workers not properly responding to the alarm, and exercise control issues associated with the dose readings used to simulate the event.

Plutonium Facility–Seismic Safety: On Thursday, LANL management transmitted to the NNSA Field Office a revision to the Evaluation of the Safety of the Situation (ESS) regarding potential non-conservatism in the seismic capacity of the fire suppression system. This ESS covers one of the primary concerns articulated in the Board's letter dated May 12, 2016. The ESS revision addresses comments from the NNSA Field Office on the April submission (see 4/22/16 weekly). The conclusion of the revised ESS remains the same—that the material-at-risk limits and other controls in place provide reasonable assurance of adequate protection without crediting the fire suppression system for post-seismic fires.

Area G–Emergency Management: On Tuesday, Area G management conducted a fact-finding regarding the responses for two separate instances where operators identified bulging low-level waste containers. In both cases, LANL HAZMAT crews determined that the drums were empty and did not contain radioactive or chemical contaminants. The fact-finding revealed concerns with the quality of data contained in the Waste Characterization and Tracking System (WCATS). For example, WCATS did not contain the genealogy for one of the drums and did not identify the other as previously bulged due to freezing as indicated by a hand-written note on the drum. The fact-finding also identified a concern regarding ensuring that contact information is appropriately logged for individuals during the process of granting unescorted access to the facility. This was revealed after a painter working alone had a delayed exit because his pager was not registered to receive evacuation instructions. Lastly, the fact-finding identified the need to heighten awareness of unexpected conditions for waste containers, including those containing low-level waste. Management is developing corrective actions for each of these concerns.

Area G–Inappropriately Remediated Nitrate Salts (RNS): On Monday, LANL management proposed to NNSA and EM management a revised strategy for the safety basis changes needed to support final treatment of the RNS waste (see 6/10/16 weekly). For each of the three facilities, they are now proposing safety basis attachments with integrated Technical Safety Requirements documents. This approach is consistent with DOE-STD-3009 and DOE-STD-1104 and will include application of the process for *Existing Facilities with Mitigated Offsite Consequence Estimates over the Evaluation Guideline*.