

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 6, 2013

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.T. Davis and R.K. Verhaagen
SUBJECT: Los Alamos Report for Week Ending September 6, 2013

Area G – Dome 375 Box Repackaging Line: As part of the campaign to remove 3706 m³ of above ground, non-cemented transuranic waste from Area G, LANL has remediated 25 oversized fiberglass reinforced plywood containers (FRPs) in the Dome 375 box repackaging line since startup of hazard category (HC)-3 operations in June 2013. LANL has been successful at decontaminating most of these containers to low level waste, obviating the need to perform size reduction activities, and thereby decreasing the risk to the workers performing this activity.

Recently completed assays of the remaining oversized FRPs show that two of them exceed the DOE Standard 1027 HC-2 threshold quantities. However, these 2 FRPs do not exceed the HC-2 threshold quantities specified in the NNSA supplemental guidance on DOE Standard 1027. As such, LANL convened a Joint Evaluation Team (JET) to determine whether these 2 FRPs can be remediated as a HC-3 activity, which would allow them to proceed with remediation of the remaining above ground FRPs without having to perform a Federal Readiness Assessment (FRA) as previously planned. The JET voted to submit a request to field office to allow the use of the NNSA supplemental guidance and not to conduct a FRA. The FRPs in question contain large gloveboxes which LANL will also attempt to decontaminate and disposition as low level waste.

Criticality Safety: The Associate Director for Nuclear and High Hazard Operations (ADNHHO) recently divided the previously combined Safety Basis and Criticality Safety divisions, which were managed by one division leader. The reorganization will allow the separate division leaders to focus on improvements in their specific area. Currently, the Deputy ADNHHO is acting as the Criticality Safety division leader until a permanent selection for this position is made.

Chemistry and Metallurgy Research Building - Confinement Vessel Disposition (CVD)

Project: Necessary changes to a Criticality Safety Evaluation (CSE) and implementation of additional criticality controls to support the CVD project have been delayed due to the limited availability of qualified criticality safety analysts. As a result, the ADNHHO has requested a delay in the start of the federal Operational Readiness Review (ORR) that was scheduled to commence next week. The proposed start date for the ORR is now September 30, 2013.

Plutonium Facility – Safety Basis: LANL recently submitted an Evaluation of the Safety of the Situation (ESS) to address facility containers that are not “watertight” as described in the CSE. In March, Plutonium Facility personnel questioned whether the vents associated with material containers were watertight as required by the Criticality Safety Limit Approval. This issue was declared a Potential Inadequacy of the Safety Analysis and subsequently determined to be an Unreviewed Safety Question. LANL conducted testing to evaluate water intrusion into containers during flooding and determined that only a small amount of water leaked into two of the fourteen container types tested. The small amount of water in-leakage was determined to be consistent with the assumptions in the CSE. The ESS commits to revising the CSE to address the small volume of water in-leakage and to revise the Documented Safety Analysis to appropriately evaluate flooding scenarios.