

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 1, 2013

MEMORANDUM FOR: S. A. Stokes, Acting Technical Director
FROM: R.T. Davis and R.K. Verhaagen
SUBJECT: Los Alamos Report for Week Ending February 1, 2013

Plutonium Facility – Seismic Safety: This week, LANL submitted a revision to the Plutonium Facility safety basis addendum on the exceedance of seismic performance goals to the field office for review and approval. The revision was submitted to address comments in a memo from the field office on the initial submission of the addendum in November 2012 (see 1/4/13 weekly). The analysis in the addendum identifies a bounding offsite dose consequence of approximately 940 rem for the seismic accident followed by a structural collapse and fire.

In addition to committing to perform structural modifications to reduce the probability of structural collapse by the end of the 2014 calendar year, the addendum identifies four compensatory measures that will be taken while the exigent circumstances identified in the addendum are addressed. These compensatory measures include: reducing the material at risk limit for the laboratory floor; reducing the material at risk limit for the vault; crediting newly-analyzed heat source safety-class containers; and removing one kilogram of heat source plutonium from the first floor by the end of calendar year 2013. The addendum identifies that implementation of these compensatory measures will reduce offsite dose consequences approximately 30% to 60% depending on safety basis assumptions. A NNSA safety basis review team is evaluating the addendum.

Plutonium Facility – Safety Basis: The field office responded to a request by LANL to revise the Documented Safety Analysis and Technical Safety Requirements to address issues with the certification and manning of control room operators and supervisors (see 12/21/12 weekly). In particular, the revision proposed reducing manning requirements and eliminating the requirement for supervisors and operators to be certified. Due to the significance of the activities these personnel are required to perform in order to ensure safety of the facility, the field office did not approve the requested revision. Plutonium Facility operations center operators and supervisors received a 6 month certification extension approved by the field office in December 2012 while LANL upgrades the training and certification process to meet DOE Order 426.2 requirements.

Area G – Startup Activities: There are a number of startup activities ongoing and upcoming in Technical Area-54, Area G. These activities will directly support LANL's efforts to meet commitments of the 3706 campaign to disposition above ground solid transuranic waste. This week, the contractor commenced a checklist readiness assessment of the Dome 231 box repackaging line to allow Hazard Category 3 operations. This review is scheduled to be complete next week.

For the Dome 375 box repackaging line, the fire suppression system passed required hydrostatic testing this week. Following successful completion of ventilation and fire suppression system installation and testing, the facility will move into a series of startup reviews culminating in a federal readiness assessment to support up to and including Hazard Category 2 repackaging operations.

Finally, the contractor submitted a corrective action plan for the federal readiness assessment of drum venting system operations in Dome 33. Following field office approval of the corrective action plan, completion of the necessary pre-start corrective actions, and authorization by the field office to commence operations, Hazard Category 2 drum venting activities will commence.