

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 29, 2014

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaué
SUBJECT: Los Alamos Report for Week Ending August 29, 2014

DNFSB Staff Activity: On Tuesday, a staff team discussed with the field office concerns with the safety bases for Area G and the RANT Shipping Facility. On Thursday, the staff team out-briefed the results of their review to field office and laboratory management.

Radiological Laboratory Utility Office Building (RLUOB): Last Thursday, LANL management authorized operations with radioactive materials. This Thursday, RLUOB received the first set of radioactive samples.

Plutonium Infrastructure Strategy: Last week, the Deputy Secretary of Energy approved reaffirmation of Critical Decision 1 for the Chemistry and Metallurgy Research Replacement facility project. The project now includes sub-projects for RLUOB Equipment Installation Phase 2 and Plutonium Facility Equipment Installation (see 8/15/14 weekly).

Plutonium Facility–Criticality Safety: Last Wednesday, program operations personnel conservatively questioned whether oil in their glovebox was covered by a provision for “cleaning liquid” on the posting. Criticality safety staff determined the oil was not sufficiently covered and management initiated an extent-of-condition review. The review concluded this week and identified 36 locations impacted by this condition and subsequently posted as out of service. Many of these locations had been through all steps of the resumption process. The path forward is to develop a technical basis to support a revised requirements document.

Emergency Preparedness: Last Thursday, LANL personnel conducted the annual full-scale emergency exercise. This year’s scenario involved an acetylene gas explosion and subsequent fire in Wing 5 of the Chemistry and Metallurgy Research building. The scenario included multiple trauma victims with radioactive contamination. The Site Representatives noted good self-assessment during the controller critique where LANL personnel identified exercise conduct concerns including an inadequate number of exercise controllers in key areas and insufficient preparation time with the scenario and evaluation criteria. From a performance side, the controllers discussed significant concerns with command and control and communications between response assets. For example, communications were poor between Incident Command and the Facility Incident Command. LANL personnel plan to issue an after-action report in early October. While field office personnel participated in the exercise, no personnel observed field play or the controller critique, though DOE Directives do not necessarily require it.

Following the exercise, the Site Representatives conveyed to managers that an over-reliance on simulation limited the benefits of field play. For example, though victims had been prepared with high quality *moulage*, fire department protocol prohibited transporting “unconscious” victim actors, who were permitted to walk from the scene around the outside of the building into the ambulances. Similarly, fire department constraints resulted in personnel not wearing breathing apparatus as expected for a fire involving radioactive material. In addition, the Site Representatives discussed the adequacy of provisions for handling contaminated patients when the limited capacity of the local medical facility is exceeded.

Weapons Engineering Tritium Facility (WETF): On Wednesday, the field office conditionally approved the Evaluation of the Safety of the Situation for the Oxygen Monitoring System (see 8/15/14 weekly). The field office directed WETF to perform three 31-day monitoring periods to demonstrate proper operation of the system prior to startup. The contractor readiness assessment is planned to commence on September 8.