

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 21, 2014

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** R.K. Verhaagen and J.W. Plaue  
**SUBJECT:** Los Alamos Report for Week Ending November 21, 2014

**Board Visit:** This week, DNFSB Chairman Winokur and Vice Chairman Roberson visited the laboratory along with staff members R.E. Tontodonato and D.J. Campbell. The Board received briefings from site personnel and walked down several facilities, including the Plutonium Facility.

**DNFSB Staff Activity:** On Thursday, staff members P.J. Foster, E.M. Gibson, and R.L. Jackson reviewed the status of the Transuranic Waste Facility project. The staff team held discussions with field office and LANL personnel regarding worker safety, the construction schedule, and planned oversight activities. The staff team and Site Representatives also walked down the construction site for familiarization and training purposes.

**Plutonium Facility–Configuration Management:** On Thursday, program personnel declared a process deviation for nuclear criticality safety when an operator discovered about 30 L of unexpected liquid in a horizontal pencil tank array. Program and facility personnel conducted a fact-finding for the event and determined that management had posted the tank array out of service in 2007 because of concerns with wall thinning. In addition, operators last rewrapped the tank flanges, which contain the sight glasses, in 2009. The fact-finding participants were unable to characterize the liquid or determine a potential source, in large part due to the lack of an engineered piping diagram for this system. Corrective actions include the development of a plan to safely sample and relocate the liquid to robust tanks. Management also determined the need for an extent of condition review to examine other out of service tanks in the facility, since these do not currently receive any type of periodic inspection.

**Plutonium Facility–Resumption Activities:** Plutonium Facility management authorized the commencement of the management self-assessment for the Balance of Machining activities.

**Emergency Management:** This week, LANL personnel conducted Emergency Radiological Responder Training (ERRT) for a class of recruits for the Los Alamos County Fire Department. The initial ERRT consists of multi-day classroom instruction on radiation protection fundamentals, unique materials fires, ventilation system fires, and glovebox fires. The ERRT also includes drill evolutions covering establishing perimeters, contaminated patient handling, and doffing contaminated protective gear, in addition to a training evolution on glovebox firefighting. An evaluated drill evolution is required annually, which is particularly important because firefighters often simulate these actions during drills and exercises in the nuclear facilities. For example, firefighters typically simulate use of breathing apparatus because of staffing constraints associated with rehabilitation time and limited overtime for extra shift coverage. Similarly, firefighters typically do not handle actual people or anthropomorphic dummies during contaminated patient handling exercise scenarios due to safety concerns for the people and the firefighters. The Site Representative observed portions of the training and found it to be generally of high quality; however, he discussed with management an inconsistency with the staged graphite containers used in the glovebox firefighting training and the containers found in the Plutonium Facility.