

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 2, 2015

**MEMORANDUM FOR:** S.A. Stokes, Technical Director  
**FROM:** R.K. Verhaagen and J.W. Plaue  
**SUBJECT:** Los Alamos Report for Week Ending October 2, 2015

**DNFSB Staff Activity:** C. T. Beaty was on site to observe the emergency exercises discussed below. On Wednesday, a staff team conducted a teleconference to discuss safety basis questions with personnel from the Transuranic Waste Facility project. On Thursday, a staff team conducted a teleconference with personnel from LANL and the NNSA and EM Field Offices to discuss the status of safety basis development activities for the storage and final treatment of the inappropriately remediated nitrate salt wastes.

**Federal Oversight:** On Friday, the Assistant Secretary for Environmental Management visited LANL for tours and discussions on the status of the transuranic waste management system.

**Emergency Management:** LANL personnel conducted annual emergency exercises at the Chemistry and Metallurgy Research (CMR) Building and the TA-48 Radiochemistry Facility. The exercise at CMR involved an acetylene tank explosion that killed a worker, injured a second worker, and damaged the facility, but did not release any radioactive materials. In accordance with their procedures, this event drove full evacuation of the facility, including the operations center and facility incident command. Evaluators preliminarily determined that all exercise objectives were met, but noted more than a dozen issues for corrective action. For example, radiological control technicians identified the need for an external supply of respirators and other response equipment. The scenario at TA-48 involved the spill of hydrochloric acid, which drove the need for a shelter-in-place action in area buildings. Participants experienced difficulties receiving the shelter-in-place notification resulting in the subsequent inability to take appropriate protective action for a release of a hazardous substance. The site representatives note that this result is concerning given the proximity of TA-48 to several hazard sources that could drive a shelter-in-place.

**Area G–Safety Basis:** On Monday, Area G personnel conducted a fact-finding after they determined that material-at-risk values for certain types of nitrate salt wastes may be underreported by a factor of as much as 10. Personnel determined that the historical data from the Plutonium Facility relied on safeguards values that did not accurately reflect the content of americium-241. Area G personnel are assessing the implications for the safety basis and are reviewing the extent of condition for other waste streams that may have elevated americium content.

**Plutonium Facility–Seismic Safety:** In a progress report issued on Wednesday, LANL management reported full completion of all milestones for the project execution strategy in fiscal year 2015, including the completion of wrapping one more girder than planned for a total of seven.

**Weapons Engineering Tritium Facility (WETF)–Risk Reduction:** WETF programmatic personnel recently reported on reductions of material-at-risk inventory within the facility. In particular, completion of readiness activities associated with UC-609 shipping container operations enabled facility personnel to transfer a significant quantity of tritium out of the facility (see 6/19/15 weekly). This week, a federal readiness assessment team began their review of facility operations. Successful completion of this readiness assessment is critical to additional reduction of legacy material-at-risk.