

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 14, 2015

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending August 14, 2015

Transuranic Waste Management: Senior managers from the NNSA and EM Field Offices, NNSA and EM Headquarters, the Carlsbad Field Office, and LANL conducted a day and a half workshop on transuranic waste management issues. The overarching objective of the workshop was to achieve alignment amongst these parties in the midst of an extremely complex situation that includes establishing the EM bridge contract, resolving numerous safety basis issues, treating the remediated nitrate salt wastes, and the inability of the Waste Isolation Pilot Plant (WIPP) to receive wastes. Of likely interest to the Board, LANL analysts currently forecast the potential for transuranic waste accumulation to reach the site's total estimated storage capacity, including Area G, TA-55 and the yet to be completed Transuranic Waste Facility, in approximately fiscal year 2017. The key drivers for this forecast are WIPP availability and safety basis limits for Area G. The vast majority of waste generation stems from key risk reduction activities at the Plutonium Facility and the Chemistry and Metallurgy Research (CMR) building. These activities include residue processing and vault cleanout activities under the Material Recycle and Recovery program, legacy equipment and materials cleanout for plutonium-238 operations, Confinement Vessel Disposition operations, and removal of legacy gloveboxes and equipment required to implement the Plutonium Infrastructure Strategy and cease operations at CMR.

Area G–Nitrate Salts: On Thursday, Area G personnel executed the NNSA Field Office direction to doublepack the four pipe overpack containers holding remediated nitrate salt wastes into standard waste boxes (see 7/24/15 weekly). These containers were remediated with absorbent polymer material rather than wheat-based cat litter. Area G personnel were able to perform this directed action using the relief granted from the Technical Safety Requirements to allow certain portions of the facility to temporarily return to OPERATIONS mode.

Plutonium Facility–Restart Activities: A federal readiness assessment team out-briefed the results of this week's review of the Isotope Fuels Impact Tester. This is the third in a series of readiness assessments necessary to resume all operations in the Plutonium Facility. The team found that all objectives were met, identified no pre-start and three post-start findings, and recommended IFIT operations should be allowed to restart. The post-start findings involved issues with the lack of a formalized operational drill program, obstructed sprinkler heads, and cognizant system engineer training. Of note, the team commended the operational excellence with which operators and their immediate management displayed.

Plutonium Facility–Seismic Safety: On Monday, following direction from NNSA Headquarters, the NNSA Field Office transmitted to LANL a letter identifying necessary actions to address a report developed by the Plutonium Facility Seismic Expert Panel (see 11/7/2014 weekly). One identified action includes the intent to establish a joint NNSA and LANL working group to develop a Request for Proposal to procure a final state-of-the-art analysis to evaluate whether the Plutonium Facility meets seismic performance requirements. Additionally, the NNSA Field Office directed LANL to perform a cost benefit analysis of suggested testing and facility upgrades, and to submit within 90 days a plan to address the remaining issues identified in the panel's report.