

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 20, 2015

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaué
SUBJECT: Los Alamos Report for Week Ending February 20, 2015

Plutonium Facility–Restart Activities: The federal readiness assessment (RA) team for the T-Base II machining operation was onsite this week to receive an in-briefing, tour the facility, and establish administrative logistics. The team plans to commence field activities on March 23, 2015. Separately, activities supporting the contractor RA for the balance of plutonium machining operations continue with the field office approving a revised plan of action for the contractor RA and LANL submitting a request to exit the justification for continued operations for the associated fissile material operations. The contractor RA team plans to commence their review the week of March 9.

Plutonium Facility–Criticality Safety: Last week, facility personnel completed facility-wide installation of the rain caps—engineered features that preclude water ingress from external sources (e.g., fire sprinklers and pipe leaks) into gloveboxes through inlet filters. In addition to the caps, the work also included replacement of wooden filters with modern metal units.

Transuranic Waste Operations–Restart Activities: Last Friday, LANL submitted a proposed plan for the restart of legacy transuranic waste operations to the field office. The plan discusses the need for safety basis modifications at Area G, the Waste Characterization Reduction and Repackaging facility, and the RANT shipping facility. The safety basis modifications are needed to resolve pre-existing issues, as well as enable implementation of a cooling control strategy for the final treatment of the remediated nitrate salt wastes. The plan indicates the need for actions in several Focused Improvement Areas including roles and responsibilities, procedure control, process control, conduct of operations, quality assurance, training, and sub-contractor management. It also acknowledges that adjustments may be needed after receipt of the final report from the DOE Accident Investigation Board. LANL currently anticipates the need to conduct federal RAs for a sampling campaign and then again for final treatment operations. With respect to the nitrate salts, the proposed schedule shows sampling operations commencing in the 4th quarter of fiscal year 2016 and treatment operations completing in early fiscal year 2019. NNSA and DOE-EM are reviewing LANL's proposed plan.

Area G–Nitrate Salts: On Wednesday, the chemistry team issued their report entitled *Chemical Reactivity and Recommended Remediation Strategy for Los Alamos Remediated Nitrate Salts*. The report represents a key technical input to the restart plan discussed above and provides an understanding of the chemical and biological processes that may have led to the breach of drum 68660. However, the report notes that additional experimental work under nuclear quality assurance practices is needed to support safety basis modifications.

Last week, LANL transmitted information to the state regulator in support of a proposal to remove the 29 unremediated nitrate salt waste drums from the Dome 231 Permacon. In the opinion of the Site Representatives, moving these drums could make the Permacon a viable and more robust alternative to the current plan to conduct sampling operations in the plastic tent within Building 412.

Transuranic Waste Storage Facility Project: On Thursday, project personnel completed the first nuclear quality concrete placement for one of the storage buildings.