

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 27, 2017

MEMORANDUM FOR: S.A. Stokes, Technical Director

FROM: J.W. Plaue

SUBJECT: Los Alamos Report for Week Ending October 27, 2017

Plutonium Facility–Conduct of Operations: Last Thursday, Plutonium Facility management briefed the NNSA Field Office on the results of their causal analysis and associated corrective actions related to the August 17, 2017, overmass event in the casting room (see 9/1/17 weekly). The analysis concludes that the event occurred primarily due to several error precursors, lack of specific role and responsibility assignments, communications failures, and residual ambiguities in required documents. The report provides 15 recommended actions, including several associated with clarifying requirements. The corrective action plan commits to address these recommendations, as applicable, by January 12, 2018. Other corrective actions are grouped associated with improving performance accountability and communication, improving management oversight, developing and utilizing conduct of operations metrics, and enhancing conduct of training. Overall targeted completion dates range from November 6, 2017, to July 6, 2018. The NNSA Field Office is separately developing an enhanced oversight plan to ensure that their monitoring of these actions is focused and sustained.

Plutonium Facility–Safety Basis: On Monday, the NNSA Field Office approved a revision of the evaluation of the safety of the situation (ESS) concerning the presence of unrinsed cellulosic materials (i.e., cheesecloth) that may have contacted plutonium-238 and nitric acid. The revision addresses NNSA Field Office comments questioning the safety of the five containers currently residing at the facility that exceed the newly established limit of 10 g plutonium-238 (see 3/24/17 weekly). Approval of the revised ESS means that the operational restriction to ensure the five containers are stored within the facility’s confinement structure is no longer necessary.

Transuranic Waste Facility (TWF): Last Thursday, TWF management appropriately paused their planned second receipt of waste subsequent to questions from NNSA Field Office personnel regarding the implementation of the waste acceptance criteria. In particular, the safety basis assumes as an initial condition that all incoming waste complies with the current waste acceptance criteria for the Waste Isolation Pilot Plant. This initial condition is protected by a key element of a safety management program, contrary to the discussion clarifying the protection of initial conditions found in DOE-STD-3009-2014, and does not currently flow into an implementing procedure. Implementation is further challenged by the language of the key element, which refers to “hazardous constituents” rather than the specific properties that are relevant to the assumptions in the safety analysis (e.g., nuclear material content, flammable gas generation rates, incompatible materials, potential for energetic reactions, etc.). TWF personnel are currently working to define and incorporate verification of these properties into their waste receipt processes.

Inappropriately Remediated Nitrate Salt (RNS) Waste–Treatment Activities: On Friday, Waste Characterization, Reduction, and Repackaging Facility workers completed treatment of the 55th RNS container out of 60. Area G personnel also executed their management self-assessment in preparation for the upcoming campaign to treat the unremediated nitrate salts (see 10/13/17 weekly).