

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 14, 2021

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: D. Gutowski, Resident Inspector
SUBJECT: Los Alamos Activity Report for Week Ending May 14, 2021

Transuranic Waste Management: Last Friday, Triad released LA-UR-21-24378, *Analysis of an Unexpected Reaction Observed During Drumout Activities, Feb. 26, 2021*, their final report for the investigation into the titanium fines event (see 4/16/2021 report). The report provides numerous recommendations to address the two identified root causes. Key recommendations for the root cause that the hazard of the reactive metal fines was not recognized include: ensuring potential pyrophoric hazards associated with inert gloveboxes are captured in work control documents, developing and implementing passivation criteria for material coming out of inert gloveboxes, and improving change control processes to re-evaluate hazards following changes such as scale-up or process modification. Recommendations for the second root cause that existing processes did not reject the prohibited material from the waste stream include: establishing a formal process for flowing down requirements from Central Characterization Project documents into Triad work control documents, requiring completion of chemical compatibility evaluations as discussed in DNFSB-TECH-46, and ensuring Acceptable Knowledge documentation accurately represents the nature of the process.

Safety Basis: On Wednesday, the NNSA Field Office approved a revision to the Triad Unreviewed Safety Question (USQ) process that addresses comments from the original submittal (see 11/20/2020 report). The Field Office provided one condition of approval. They requested that the procedure be revised such that the New Information process is indicated as being a part of the USQ process. They noted that the separation between the processes in the current revision is inconsistent with the DOE implementation guide for USQs. They further noted that entering the New Information process is an entry condition for the Potential Inadequacy of the Safety Analysis (PISA) process. As such, timeframes associated with the USQ process should start with entry into the New Information process. The Board's July 10, 2020 letter on complex-wide implementation of the PISA process also highlighted that DOE site contractors, including Triad, often take time to evaluate new information before entering their formal processes which could further extend the time a facility may be in an unsafe condition.

Area G–Safety Basis: Last Monday, the Environmental Management Field Office and Headquarters responded to N3B's most recent revision of their Safety Basis Strategy for upgrading the Area G safety basis to a modern DOE-STD-3009-2014 compliant document while maintaining safe current operations under the existing safety basis (see 3/19/2021 report). The letter provided several comments on the strategy but requested that the comments be used to inform N3B's safety basis development efforts instead of submitting a revision or formal comment response.

Readiness: This week, Triad submitted its third quarter startup notification report to the NNSA Field Office. Also this week, N3B received approval of its first and second quarter startup notification reports from the EM Field Office. Notable changes include shifting the project startup date for elevating the Radiological Laboratory Utility Office Building to a hazard category-3 nuclear facility out nine months to April 2022 and continued delays in venting the Flanged Tritium Waste Containers at Area G.