

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 28, 2021

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: D. Gutowski, Resident Inspector
SUBJECT: Los Alamos Activity Report for Week Ending May 28, 2021

DNFSB Staff Activity: On Wednesday, members of the Board's staff conducted a teleconference with Triad and NNSA Field Office personnel to discuss the results of their review of the Onsite Transportation Safety Document (see 3/19/2021 report).

Transuranic Waste Facility (TWF): On Tuesday, Triad submitted to the NNSA Field Office for approval a revised TWF safety basis. Last month, NNSA rejected a previous revision of this submittal which addresses issues with firewater pump acceptance curves (see 8/28/2020 report). Last October, Triad re-performed field tests of the firewater pump to establish a new performance baseline. The Fire Suppression System was elevated to safety-significant as a major contributor to defense-in-depth in a 2018 revision of the TWF Documented Safety Analysis. However, resolving the pump curve issues has delayed full implementation of said designation.

Transuranic Waste Management: A review team sponsored by NNSA's Office of Safety, Infrastructure, and Operations was onsite this week completing a review of transuranic waste needs to support production of 30 pits per year. The review scope is focused on optimizing the processes to compliantly prepare newly generated transuranic waste drums for shipment to the Waste Isolation Pilot Plant (WIPP) rather than looking at existing inventories. The team expects to complete their final report next month.

N3B completed two transuranic waste shipments to WIPP last week and one this week through Triad's RANT Shipping Facility. Given the additional controls and restrictions associated with the safety basis issues at Area G, and material at risk limitations at RANT, N3B will have a challenge in the near term building additional shipments from their current population of WIPP certified drums. Mobile loading at Area G, the alternative to shipping through RANT, is currently restricted due to a prohibition on crane usage at Area G as a compensatory measure to a potential inadequacy of the safety analysis. N3B and EM-LA are working to resolve safety basis issues and ramp up operations in a compliant manner.

Safety Basis: Earlier this month, the NNSA Field Office issued their review plan for the planned upgrade of the Plutonium Facility safety basis using DOE-STD-3009-2014. This safety basis update will include a new accident analysis using modern methodologies for key safety inputs such as the leak path factor, atmospheric dispersion modeling, and fire hazards analysis. Triad plans to submit the new safety basis in March 2022. The field office's review plan identifies additional subject matter expert support from other DOE organizations but does not yet identify a reviewer for the MELCOR code calculations that will be used to develop a new facility leak path factor. NNSA plans to update their review plan as additional resources are identified.