

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 9, 2016

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending December 9, 2016

DNFSB Staff Activity: On Wednesday, staff members T.J. Dwyer, M.W. Dunlevy, and P.J. Migliorini met with NNSA and LANL personnel at DNFSB Headquarters to discuss progress made with respect to DNFSB/Tech 39, *Opportunities for Risk Reduction at the LANL Plutonium Facility through the Minimization of Material-at-Risk*.

Transuranic Waste Facility (TWF) Project: On Tuesday, the NNSA Field Office Manager approved the final safety basis for the project. The approval included directed changes to: (1) temporarily reduce the material-at-risk limit by 15 % and (2) revise the basis for a technical safety requirement associated with drum banding. Additionally, the approval included conditions to: (1) submit a revised safety basis that classifies the fire suppression system as safety significant, including the minimum necessary and sufficient support systems (directed change #1 would then expire) and (2) prohibit the receipt of pipe overpack containers (POC) until the safety basis is re-evaluated to consider the results of the ongoing fire testing (see 11/11/16 weekly). Notably, several of the safety basis review team members did not recommend approval. Furthermore, the NNSA Cognizant Secretarial Officer, who concurred on the documents, also placed a condition of approval to require full implementation of the safety significant fire suppression no later than February 28, 2018.

LANL anticipates the start of operations in late spring 2017. The Site Representatives note that the current prohibition of POCs and limitations contained in the permit from the New Mexico Environment Department mean that TWF can only receive about 100 of approximately 700 waste containers currently stored at the Plutonium Facility. Moreover, NNSA management has accepted the programmatic and safety risks of continuing to pack combustible waste in POCs with the expectation that fire testing will eventually support the acceptance of these packages into the Waste Isolation Pilot Plant.

Plutonium Infrastructure Strategy: On Monday, the LANL Director sent the NNSA Administrator a letter outlining a potential slip in the commitment to cease programmatic operations in the Chemistry and Metallurgy Research (CMR) building from 2019 to 2021. LANL cites the source of the schedule risk as funding alignment issues and the delay in the CD-2/3 approval and with the equipment installation subprojects (see 11/4/16 weekly). Notwithstanding this potential delay, the Director noted past and continued risk reduction activities at CMR.

Emergency Management: On Monday, the NNSA Field Office Manager approved LANL's revised after action report for the full-scale exercise (see 10/28/16 weekly). The approval letter included seven observations, the most significant of which included the failure to establish an effective incident command and to ensure responding personnel were not in the radioactive plume without proper protective equipment.

Waste Characterization Reduction and Repackaging Facility (WCRRF)–Emergency Management: On Wednesday, WCRRF personnel conducted their annual emergency exercise. This year's scenario involved a thermal runaway of an inappropriately remediated nitrate salt waste drum and an unconscious worker who sustained injuries while trying to move away from the drum. Of significance, emergency responders were slow to respond to the injured individual who remained unconscious in the radioactive plume and cold weather for more than an hour and a half.