DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 22, 2021

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending January 22, 2021

Transuranic Waste Management: On Thursday, N3B management transmitted to the EM Field Office for approval its evaluation of the safety of the situation (ESS) for the potential inadequacy of the safety analysis concerning DNFSB/TECH-46 (see 12/11/2020 report). The ESS proposes compensatory measures for transuranic waste containers that are identified to have incompatible chemicals or unknown contents. The compensatory measures include overpacking or placing a lid restraining device on the container and moving the container to the Dome 375 PermaCon. The ESS notes that N3B plans to submit a justification for continued operations within 90 days of the field office approving the ESS. The field office is reviewing.

Plutonium Facility–Infrastructure: On Thursday, the NNSA Field Office transmitted comments and direction to Triad management regarding the previously submitted revisions to the major modification determination and safety design strategy for the Los Alamos Plutonium Pit Production Project (LAP4) (see 11/27/2020 report). The field office direction, which was informed with formal advice from NNSA's Chief of Defense Nuclear Safety, notes that several of the screening criteria for determination of a major modification to the safety basis should have been tripped in accordance with DOE-STD-1189-2016, *Integration of Safety into the Design Process*. In particular, the field office noted that the design options for some of the installation activities may require relocation of interior walls and perturbing portions of the safety class confinement structure. Other significant comments include: improving discussions of material-at-risk changes to include integration of other potential mission work changes (i.e., Advanced Recovery and Integrated Extraction Recovery System); addressing interim conditions during construction; improving integration of safety basis deliverables with the parallel upgrade of the safety basis to comply with DOE-STD-3009-2014; and addressing the hazards associated with the removal of existing contaminated equipment.

In advance of this direction, Triad management chartered a safety-in-design integration team to revise the safety design strategy and submit an acceptable safety design strategy by February 24, 2021. The team began meeting last week and has held several discussions.

Last week, NNSA personnel conducted an integrated project review of LAP4 in advance of a critical decision-1 milestone planned for April 2021. The team's out-brief noted several preliminary concerns, including: adjusting the conceptual design to the major modification determination, including impacts to scope, cost, and schedule; strengthening integration across nuclear safety disciplines; insufficient code of record development for this stage of design; and an incomplete staffing analysis with unrealistic hiring assumptions.

Radiological Laboratory Utility Office Building (RLUOB): Last month, NNSA directed several actions to support upgrade of RLUOB to a hazard category 3 nuclear facility to be known as PF-400 (see 12/11/2020 report). On Wednesday, Triad submitted to the NNSA Field Office their response, including the plan for clarifying the RLUOB code of record. They plan to compare the existing code of record for RLUOB and determine any gaps with current codes and standards. The review is scheduled for completion in June 2021 to support a safety basis update in September 2021.