

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 16, 2018

MEMORANDUM FOR: S.A. Stokes, Technical Director

FROM: J.W. Plaue and D. Gutowski

SUBJECT: Los Alamos Activity Report for Week Ending February 16, 2018

DNFSB Activity. NNSA Field Office senior staff reported that they held a phone discussion with Board Member Santos regarding restart of electrorefining operations in the Plutonium Facility.

Transuranic Waste Facility (TWF). On Monday, TWF managers briefed the NNSA Field Office on the number of containers available for shipment from the Plutonium Facility. TWF managers indicated there are currently 351 eligible standard 55-gallon drums after accounting for state regulatory restrictions and a prohibition on pipe overpack containers. In response to questions associated with compliance with the current waste acceptance criteria (WAC) for the Waste Isolation Pilot Plant (WIPP), which is required by an element of a safety management program, TWF managers expressed confidence that each of these containers would likely meet the new WAC; however, they indicated that none of the containers had completed the new elements of the WIPP WAC. The new elements of the WIPP WAC include the Generator Site Technical Review, the basis of knowledge review, and a chemical compatibility evaluation—all corrective actions to prevent recurrence of the energetic event that resulted in the WIPP radiological release event. This is important because the approved safety basis notes that the unmitigated consequences from a WIPP-like event, in the absence of new DOE direction, could be two to three orders of magnitude higher than currently analyzed. On Wednesday, TWF safety basis personnel entered their New Information process on this issue for a second time (see 12/1/2017 weekly).

Chemistry and Metallurgy Research Building. A contractor readiness assessment team completed their review of the drum venting and overpacking operation for the americium-241 materials previously received from an offsite commercial vendor (see 8/18/2017 weekly). At their outbrief, the team identified three pre-start findings associated with: (1) radiological dose tracking for a lifting sling; (2) subject matter expert review of the procedure changes; and (3) implementation of a safety basis control in the procedure. The team also raised significant concerns regarding procedural adequacy, conduct of operations, and resolution of previously identified issues. They linked these concerns to human performance error precursors and weaknesses in institutional programs.

Radioactive Laboratory Utility Office Building (RLUOB). The contractor submitted a revised Safety Design Strategy for upgrading RLUOB from a radiological facility to a hazard category-3 nuclear facility to the NNSA Field Office for review and approval (see 4/17/2015 weekly). The proposed strategy relies on a Specific Administrative Control to keep the material-at-risk inventory in the facility at a level that ensures offsite and collocated worker consequences are well below the threshold for additional controls. The strategy also includes engineered and administrative defense-in-depth controls including the fire protection system, ventilation system, and building structural design.

Plutonium Facility–Infrastructure. Plutonium Facility personnel started the tie-in of the new safety-significant Uninterruptable Power Supply. The NNSA Field Office approved a temporary safety basis modification that accommodates the interim configuration during the transition from the existing to the replacement system. This modification allows the system to be inoperable for a period of time during the final tie-in. Final connection activities are being performed while the facility is in standby mode.