

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 12, 2019

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending April 12, 2019

RANT Shipping Facility: Triad personnel resumed shipping operations of transuranic waste to the Waste Isolation Pilot Plant (WIPP) using the RANT Shipping Facility. The facility had been in cold standby since 2014. They moved the first shipment of 42 transuranic waste drums from the Transuranic Waste Facility (TWF) to RANT on Monday. The shipments were loaded into TRUPACT-II shipping containers on Tuesday and Wednesday then departed for WIPP on Thursday. The importance of restoring an indoor shipping capability for transuranic waste was evident this week as high winds associated with the explosive cyclogenesis event in the central United States curtailed outdoor operations at TWF, Area G, and RANT on Wednesday.

Weapons Engineering Tritium Facility: Triad personnel unloaded the inner containers from the Flanged Tritium Waste Container (FTWC) that was vented last Friday. Of the five inner containers, one was processed this week to reduce internal pressure. One container has exterior contamination indicating the potential for leakage. Facility personnel will continue to process these inner containers and plan to vent and unload the second FTWC in May.

Area G: On Tuesday, N3B personnel discovered a drum outside of a fire-rated safe labeled as containing 38 sources. Eleven of these sources are listed in a Specific Administrative Control in an Evaluation of the Safety of the Situation (ESS) which requires they be stored in a fire-rated safe when not in use. The workers immediately implemented a fire watch then opened the drum and performed a physical inventory per their source movement procedure. They discovered that the drum label was not fully accurate and there were thirteen sources that had to be moved into a safe. As these were placed into safes, an extent of condition review of sources listed in the ESS found several more that required movement. Facility personnel have completed these moves and are performing a broader extent of condition review on other types of sources. Facility management declared a violation of the Technical Safety Requirements due to the non-compliance with the ESS control.

Transuranic Waste Management–Inconsistencies: Transuranic waste can be staged in outdoor locations in proximity to vehicle traffic at the Plutonium Facility, the Waste Characterization Reduction and Repackaging Facility, TWF, RANT, and Area G. With the exception of the mobile loading operation at Area G, the safety bases for each of the last four of these facilities considers as part of the accident analysis a vehicle crash into waste containers and a subsequent fuel pool fire. While the analytical assumptions (e.g., number of breached containers) used in each of these analyses differ, the results identify the need for vehicle barriers to prevent such accidents. The accident analysis for the Plutonium Facility examines other types of accidents to outdoor transuranic waste, but it does not analyze a vehicle crash with subsequent fuel pool fire. As such, vehicle barriers are not used even though the material-at-risk is similar to the other facilities. In our opinion, this situation may warrant reconsideration at the Plutonium Facility as construction activities and associated heavy equipment traffic is increasing adjacent to the outdoor transuranic waste storage areas.