

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 17, 2018

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending August 17, 2018

DNFSB Staff Activity: On Tuesday, B.K. Caleca and M.T. Wright conducted a teleconference with NNSA Field Office and LANL contractor personnel to discuss actions taken to address the Board's letter dated May 12, 2016, related to the fire suppression system for the Plutonium Facility. On Wednesday, a Resident Inspector briefed the New Mexico State Legislature's Interim Committee on Radioactive and Hazardous Waste.

Plutonium Facility–Safety Basis: On Wednesday, Plutonium Facility management declared a potential inadequacy of the safety analysis related to the biokinetic solubility of plutonium-238 oxide (see 7/20/2018 report). In particular, safety basis analysts determined that all plutonium-238 powders that have not been calcined above 800 °C should use the dose conversion factor associated with Type M solubility. Operations personnel paused work and are implementing material-at-risk (MAR) restrictions. Facility management requested an extent of condition to examine the processing temperature history of plutonium-238 oxides received from offsite, as well as other materials that may be subject to this concern.

Last Friday, the LANL contractor submitted the safety basis annual update for 2018. This document represents their effort to modernize the hazards analysis and consolidate legacy safety basis documents (see 1/12/2018 report). The transmittal letter notes that upon approval and implementation, this new safety basis will close 13 different legacy documents. The NNSA Field Office is targeting approval this October. Facility management is developing an implementation schedule.

RANT Shipping Facility: Last Friday, the LANL contractor submitted a revised safety basis to the NNSA Field Office to support restart and address the Board's letter dated December 9, 2014.

Transuranic Waste Facility: Last week, workers inadvertently performed a MAR surveillance on the wrong building during a waste movement, which violated the technical safety requirements. They realized the error, performed the correct surveillance, and found that they did not exceed the MAR limits. Facility management has implemented a standing order requiring an additional check that the correct surveillance is being performed while they evaluate a long-term solution. Other recent developments include: (1) Facility personnel completed installation of a protective cover for the safety-class seismic power cutoff switch to prevent inadvertent actuation due to hail (see 7/20/2018 reports), (2) They also completed installation of a patch to replace the temporary repair to the insulation on the firewater tank (see 3/2/2018 report), and (3) On Tuesday, safety basis personnel submitted a revised safety basis to the NNSA Field Office that addresses upgrading the fire suppression system to safety-significant, modifies the control for chemical compatibility based on NNSA comments, and adds a new filter for pipe overpack container to address the results of recent fire testing.

Confinement Vessel Disposition Project: On Thursday, a worker inadvertently bumped the emergency stop button for the safety-significant ventilation system for the enclosure. The workers inside the enclosure started to exit and during their egress, two continuous air monitors alarmed. Facility personnel entered two limiting conditions for operations. There was no contamination spread during the egress, the ventilation has been restored, and a re-entry team returned the work area to a stable configuration before the end of the day. They plan to evaluate the stop button.