

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 7, 2020

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending February 7, 2020

DNFSB Activity: On Friday, NNSA personnel briefed the Board in response to their letter dated November 15, 2019, regarding improvements to the safety posture for the Plutonium Facility.

Plutonium Facility–Transuranic Waste Operations: On Monday, workers appropriately paused work after a radiological control technician measured an unexpectedly high gamma radiation field on a newly generated transuranic waste drum. In particular, a location near the bottom of the drum measured about 650 mrem/h on contact, which exceeded the 200 mrem/h limit established for contact handled transuranic waste. The workers were disposing of waste materials from the americium-241 oxide production operation. Given the potential for high gamma fields associated with this waste stream, the workers had surveyed the individual waste items prior to placement in the drum. At the fact-finding held on Wednesday, participants determined that either a survey error or a change in configuration of a waste item likely contributed to the unexpected condition. They identified corrective actions intended to prevent the generation of high radiation transuranic waste drums, since Triad current currently lacks the capability to repackage these non-compliant containers into a form acceptable for disposal. The corrective actions include evaluation of the radiation survey process, as well as examining the routine use of pipe overpack containers (POC)—which offer greater radiation shielding—for this waste stream.

Plutonium Facility–Formality of Operations: During the fact-finding discussed above, the radiation protection manager aptly noted that materials with elevated gamma fields have the potential to inadvertently activate the nuclear criticality alarm system. While they recently updated a requirements document to reflect an administrative control to prevent this issue, workforce awareness of this control appeared lacking. As such, management took an action to discuss the control in an upcoming briefing.

Transuranic Waste Operations: On Monday, Triad personnel were moving drums from the Plutonium Facility to the RANT Shipping Facility. The load included five POCs from the Offsite Source Recovery Program (OSRP). These POCs do not have the new filter type used to preclude a release from a fire (see 1/25/2019 report). While the contents of the OSRP POCs are not readily dispersible in a fire, the RANT safety basis requires that all POCs have the new type of filter. Verifying filter types is not part of the prerequisite checks prior to shipping to RANT; however, RANT workers do verify filter type to ensure safety basis compliance as part of their acceptance process and rejected these containers. Other OSRP POCs currently stored at the Plutonium Facility use this older filter, which is allowed by the Plutonium Facility safety basis. Triad personnel are evaluating whether to replace all POC filters with the new type rather than changing the RANT safety basis to allow the older filters for OSRP POCs.

Area G: Last Thursday, N3B workers inadvertently knocked a non-radiological mockup of a corrugated metal pipe (CMP) from its cradle with a forklift. The 4.8 metric ton pipe then rolled approximately 12 meters downhill before stopping at a fence. The workers did not inform the operations center of the event, but did move the dislodged CMP mockup to a more stable position perpendicular to the slope. Facility management noted the condition later in the day when driving past and initiated reporting.