DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 22, 2022

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: A. Boussouf and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending July 22, 2022

Plutonium Facility–Safety Basis: On Wednesday, Triad transmitted to the NNSA Field Office, for information, an updated project execution plan for upgrading the Plutonium Facility's safety basis to meet DOE-STD-3009-2014, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis* (see 7/19/2019 report). The updated plan includes using transuranic waste hazard evaluation methods per DOE-STD-5506-2021, *Preparation of Safety Basis Documents for Transuranic (TRU) Waste Facilities* and adding the updated waste stream chemical compatibility evaluation process (see 7/8/2022 report). The contractor's new safety basis submission date is May 25, 2023. The NNSA Field Office is evaluating the plan and how to manage future changes.

Plutonium Facility–Material at Risk: Facility personnel recently started a long-term effort to reduce excess material at risk in heat source plutonium laboratory areas. There are numerous containers with assorted materials stored in gloveboxes and the surrounding workspace. Personnel are starting by evaluating which materials need to be archived in the vault and which can be recycled as feed. There are many safety benefits to this activity, including improved ergonomics, reduced worker dose, and reduced material at risk.

Chemistry and Metallurgy Research Building (CMR): Last week, the decontamination and decommissioning subcontractor resumed higher hazard work in Wing 3 using improved practices for airborne and surface contamination control developed following the contamination event during a glovebox removal earlier this year (see 2/25/2022 report). Last Thursday, workers were decontaminating an area where a vacuum pump had been moved and were also disconnecting gloveboxes and hoods in the same room. The workers performing the decontamination had contamination detected on their personal protective equipment. While doffing and exiting the room, the continuous air monitor (CAM) alarmed. The workers were in respiratory protection and exited safely with no skin contamination or evidence of an uptake. The contamination did not spread into the hallway and remained in the laboratory room. In response to this event, facility and subcontractor personnel plan to retrain individuals on CAM alarm response, evaluate doffing practices including the potential use of fixative, and evaluate installing remote monitoring of CAMs as they currently only have local readouts in the laboratory rooms.

Area G–Safety Basis: Last Monday, N3B transmitted a letter to the Environmental Management Field Office for Approval requesting to extend the expiration date of four Justifications for Continued Operations (JCO) set to expire on 9/2/2022 (see 10/15/2021 report). These are the JCOs associated with 1) material at risk in pipe overpack containers, sealed sources, and Building 412; 2) mobile crane and forklift operations; 3) potentially energetic waste drums as discussed in DNFSB-TECH-46; and 4) multiple fire and seismic scenarios. As the new documented safety analysis is not expected to be completed until January next year, N3B requested an extension of the JCOs until February next year. In addition to the expiration extension, the request includes a change to the first JCO to allow for movement and removal of legacy sealed sources and a change to the third JCO to update the list of drums of potential concern. Environmental Management personnel are evaluating the request and the appropriate extension timeframe to match the expected approval of the updated safety basis.