DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 5, 2021

MEMORANDUM FOR: Christopher J. Roscetti, Technical Director
FROM: D. Gutowski, Resident Inspector
SUBJECT: Los Alamos Activity Report for Week Ending November 5, 2021

Plutonium Facility–Infrastructure: The resident inspector joined Triad personnel to observe off-shift deactivation and decommissioning and construction activities supporting the 30 pit per year mission. Of note, Triad personnel have begun planning for the removal of a more challenging glovebox than other recent removals that have been disconnected, wrapped, and removed without significant issues. Given its size and weight, this box will likely require some in-situ size reduction in an actively used processing room. Triad is currently evaluating several options for performing the activity while controlling contamination and meeting other requirements. Triad is also actively removing equipment and concrete pads in the basement to clear space in what remains a congested location. This process generates a substantial volume of low-level waste. Keeping up with waste generation remains a challenge in the facility. Waste removal activities were in progress Wednesday morning and personnel were actively loading a waste box with bags of concrete debris.

Plutonium Facility–Safety Basis: Last week, Triad submitted to the NNSA Field Office both another extension request for the current Evaluation of the Safety of the Situation (ESS) for overpressurization of sealed sources in the Plutonium Facility and a new revision to the ESS. The current ESS has been in place since December 2019 and stems from an August 2019 potential inadequacy of the safety analysis (see 9/20/2019 report). The new revision attempts to address concerns from the NNSA Field Office. It includes additional justification for the choices of airborne release fractions/respirable fractions and a limiting condition for operation for application of new multiplication factors for analysis of materials releases.

Radioactive Liquid Waste Treatment Facility (RLWTF): Over the past month, there have been three air-hose disconnects during doffing of powered air purifying respirators (PAPR) at RLWTF. These incidents have all been for the same job involving almost two hundred total respirator entries into a containment tent. Facility personnel leveraged the DOE Operating Experience system and noted their issues appears similar to a problem at the Y-12 National Security Complex in 2019. They believe that extra attention to properly taping up the respirators and formally documenting that in work instructions will resolve the issue. The activity is paused until corrective actions are incorporated into work practices.

Radiological Laboratory Utility Office Building (RLUOB): The NNSA Field Office conditionally approved an equivalency to DOE-STD-1066, *Fire Protection*, for HEPA filter deluge systems in RLUOB. The facility currently includes such a system, however Triad proposed removing it per the provision in the DOE standard that allows for a technically justified alternative approach. They are using a computational fluid dynamics model to demonstrate that dilution air is sufficient to keep filter temperatures below requirements in lieu of the deluge system. NNSA's approval letter includes five conditions of approval largely related to assuring formal control of the modeling assumptions and other facility conditions related to the equivalency.