

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 30, 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 August 30, 2019

Flanged Tritium Waste Containers (FTWC): On Wednesday, Triad submitted to the NNSA Field Office a safety basis addendum in support of venting and handling the FTWCs with potentially flammable headspace currently stored in Area G. The addendum proposes credited design features including the FTWC vessel, an overpressure barrier, and a restricted flow orifice. Additional proposed controls include Specific Administrative Controls (SAC) regarding the use of the vent rig and the pressure monitoring manifold. The NNSA Field Office is currently reviewing the addendum for ultimate approval by the EM Field Office.

Radiological Laboratory Utility Office Building: On Wednesday, Triad submitted to the NNSA Field Office the safety basis supporting future hazard category 3 nuclear operations. The safety basis is written to the new DOE-STD-1228-2019, *Preparation of Documented Safety Analysis for Hazard Category 3 DOE Nuclear Facilities*. Notably, DOE has not yet approved the proposed revision of 10 CFR 830, *Nuclear Safety Management*, which incorporates this new standard. The safety basis primarily relies on a SAC to protect the material-at-risk inventory in the facility at a level that ensures offsite and collocated worker consequences are well below the threshold for additional controls. Engineered defense-in-depth controls include: the building structure, fire suppression system, glovebox enclosures, fume hood ventilation, and building ventilation. Triad requested approval by December 2019 to support the pit production mission.

Safety Basis: On Wednesday, the NNSA Field Office approved a temporary safety basis modification to support the transportation of a 231 ton motor generator rotor offsite for repair. Triad submitted the modification on Monday to cover the fact that the rotor will pass several hazard category 2 and 3 nuclear facilities on its travel path, and the mass of this transport challenges assumptions in the vehicle crash analyses for these facilities. The safety basis modification states that the RANT Shipping Facility, Waste Characterization Reduction and Repackaging Facility (WCRRF), and the Transuranic Waste Facility (TWF) could be impacted by the transport based on topography. The required controls in the modification are: ensuring that WCRRF and RANT are in cold standby mode during the activity, ensuring that the vehicle travels below five miles per hour to ensure the kinetic vehicle barriers for TWF can protect the facility, a rolling road closure, and a vehicle inspection. The NNSA Field Office directed two changes to ensure the controls were appropriately worded for the return trip.

Emergency Management: Earlier this month, N3B completed their after-action report for the drill that was conducted during the Building 412 contractor readiness assessment (see 8/23/2019 report). Of relevance for the entire laboratory, the report notes that there are significant differences in the terminology used between radiological control technicians and Los Alamos County Fire Department (LAFD) personnel to convey readings. Fire department personnel specifically raised this concern during the player hot wash with the particular examples of confusion regarding surface contamination levels and airborne radioactivity. The report further notes that this is an ongoing, known problem across the laboratory. N3B procures emergency management support services from Triad, which works with the NNSA Field Office to contract services from LAFD.