

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 4, 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 September 4, 2020

DNFSB Staff Activity: On Monday, a staff team conducted a teleconference with Triad and NNSA Field Office personnel to discuss the results of its review of the safety basis that will be used to transform the Radiological Laboratory Utility Office Building into a hazard category 3 nuclear facility to be termed PF-400.

Area G: Last Wednesday, N3B personnel received notification from the Central Characterization Program (CCP) that a pipe overpack container had recently been assayed and assigned a value of 86.9 plutonium-239 equivalent curies (PE-Ci). Since this value exceeded the current safety basis limit of 80 PE-Ci, N3B personnel took action to quickly isolate the drum, remove liquid fueled vehicles from the area, and doublepack the container later that day. The container had a previous assay value of 65.6 PE-Ci based on measurements at the Plutonium Facility performed in 2014. Differences in assay values sometimes occur because different instrumentation is used. N3B personnel are reviewing the inventory to determine if CCP has not yet measured other containers with existing assay values approaching the limit.

Plutonium Facility–Fire Protection: Last Wednesday, during work on the backshift in the basement, a small fire occurred during pipe brazing activities that were covered under a hot work permit. After workers observed a small amount of unexpected cheesecloth debris in the pipe ignite, they immediately extinguished and then smothered it with wet cheesecloth. The incident was reported to the operations center several hours later by a radiological control technician. At the fact-finding held this week, attendees discussed what level of small incipient fires were acceptable during hot work activities. In this case, since the cheesecloth debris was unexpected, facility management determined that the job should have been paused and the incident reported more promptly. Triad management is evaluating whether changes to the hot work permit process or abnormal event procedures are warranted for small fires of this type.

Area G–Emergency Management: N3B personnel are preparing for startup of drill and drain activities later this calendar year. On Wednesday, they performed a coached drill involving worker response to a foul odor released by drilling into a drum. The odor caused medical symptoms in support workers outside of the Dome 231 Perma-Con, since they were not wearing chemical respiratory protection. One concern noted during the drill was unreliable radio communications between the control room and the workers inside the Perma-Con.

Flanged Tritium Waste Containers (FTWC): Triad personnel performed additional mockup practice for venting at Technical Area 49 following the feedback from the contractor readiness review (see 8/21/2020 report). During this week's mockups, they tested moving a FTWC on a surface that more closely represents the metal grating found in the actual Area G shed. They also practiced disassembly of the portable ventilation skid while treating it as internally contaminated. Closure of corrective actions and preparations for the federal readiness assessment continue.