

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 30, 2018

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: J.W. Plaue and D. Gutowski, Resident Inspectors
SUBJECT: Los Alamos Activity Report for Week Ending March 30, 2018

Plutonium Facility–Conduct of Operations: Last Friday, in response to recent process deviations (see 3/23/2018 and 3/9/2018 reports), the Pit Technologies Division management proactively paused all of their operations involving special nuclear materials. They developed a criteria and review approach document to assess all of their operations through plant walk-downs and discussions with fissile material handlers. The assessment evaluated three areas: compliance and usability of the criticality safety postings; worker engagement and understanding; and best practices and areas of improvement from the perspective of the “voice of the worker.” Notably, management required that personnel independent of specific operations participate in the assessment to ensure objective evaluation. Pit Technologies management completed their review on Wednesday and resumed the majority of their 93 fissile material operations on Thursday after receiving concurrence from the Responsible Associate Director. Seven operations remain restricted, including newly discovered potential process deviations concerning two operations with posting compliance issues and a third operation that needs to implement a new posting. The seven operations will be released individually once the issues are resolved. Additionally, management is developing a remediation process for the workers involved in last week’s inappropriate pit movement.

Plutonium Facility–Nuclear Criticality Safety: On Thursday, Plutonium Facility personnel conducted a fact-finding after nuclear criticality safety personnel noted that language in a criticality safety posting had drifted from the technical basis resulting in a potential process deviation. Specifically, the technical basis originally supported a limit of “dry Pu in a SNMC (special nuclear material container),” that had been changed via a level 2 memo to “Pu in waste;” however, the underlying assumptions on the presence of moderating materials for these defined terms are different. The affected locations are currently posted out-of-service and deemed safe. Management took an action to review other level 2 memos, as well as review the response to a potential process deviation for occasions when it is initiated away from the work location.

Federal Oversight: On Thursday, NNSA Field Office personnel conducted a walk-down of the Plutonium Facility as part of their enhanced oversight plan (see 2/9/2018 report). This walk-down focused on the accuracy of the plan of the day. An accurate plan of the day is necessary to ensure work activities are authorized, conflicting work is precluded, and supporting resources are available. An accurate plan of the day can also be a useful tool for laboratory management and NNSA oversight personnel to effectively plan work observations necessary to strengthen conduct of operations. During this walk-down, NNSA Field Office personnel observed instances of work being performed that was not on the plan of the day. They also noted that the operations center staff demonstrated an inconsistent level of awareness between ongoing programmatic, maintenance, and construction activities. They plan to discuss these observations with LANL management during their periodic enhanced oversight briefings.

Weapons Engineering Tritium Facility: Last week, one of the safety-significant room tritium monitors failed when water entered the system. The monitor has been replaced, and facility management is evaluating why water collected and overwhelmed a drier system.