

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 24, 2017

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending February 24, 2017

Area G–Safety Basis: Last Thursday, Area G management declared a Potential Inadequacy of the Safety Analysis (PISA) concerning a weakness in the waste acceptance criteria for transuranic waste containing greater than 10 g of plutonium-238 and cellulosic wipes originating from the aqueous scrap recovery line in the Plutonium Facility. This action stemmed from the extent of condition review following the declaration of a similar PISA at the Plutonium Facility (see 2/3/17 weekly). At the fact finding, Area G personnel explained their logic that the existing safety basis adequately covered the three impacted containers currently stored at the facility and that no additional controls are necessary. However, they noted that the waste acceptance criteria would not have prevented receipt of containers that could have exceeded certain safety basis assumptions and therefore determined a need to place an additional restriction in the criteria. Interestingly, the onsite transportation safety basis already restricts transport of packages containing greater than 10 g of plutonium-238—the affected containers at Area G were the subject of a previous violation of the Technical Safety Requirements. There are also a number of additional containers in excess of this limit currently stored at the Plutonium Facility that may require remediation prior to onsite shipping.

Plutonium Facility–Safety Basis: Last Friday, the NNSA Field Office Manager approved the 2016 safety basis annual update letter submitted in May 2016. Notably, the NNSA Field Office Manager directed the LANL contractor to develop a plan to resolve all outstanding conditions of approval, directed changes, directed actions, and safety basis comments. The objective of this plan is to capture resolution of these items into a consolidated safety basis by August 3, 2017.

Chemistry and Metallurgy Research Building–Safety Basis: On Wednesday, the NNSA Field Office Manager unconditionally approved the Evaluation of the Safety of the Situation (ESS) for the PISA concerning nuclear material holdup quantities that may exceed the values assumed in the safety basis (see 10/7/16 weekly).

Area G–Safety Basis: Last Friday, the NNSA Field Office Manager approved the ESS for the flanged tritium waste containers (FTWCs) stored in Area G that may be pressurized with a potentially explosive headspace mixture of oxygen and hydrogen isotopes (see 10/28/2016 weekly). In the approval letter, the NNSA Field Office Manager concludes the FTWCs are currently in a safe configuration and requests LANL submit the final disposition plan and schedule for approval by the end of April.

Plutonium Facility–Readiness Activities: Last Friday, the management self-assessment team issued the report from their review of aqueous chloride processing and americium production capability in the Plutonium Facility (see 12/23/2016 weekly). The team determined that thirteen of the fourteen core requirements were met—the criticality safety core requirement was judged as not met. The team concluded that subject to closure of the 5 identified pre-start findings, Plutonium Facility personnel have adequately demonstrated readiness to move on to the Contractor Readiness Assessment.