

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 16, 2015

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending January 16, 2015

Plutonium Facility–Restart Activities: On Monday, LANL commenced their contractor readiness assessment (CRA) of the T-Base II machining activity. The scope of the activity includes a single glovebox housing the lathe machine and a supporting glovebox and is conducted by two machinists and their first line manager. LANL management proposed using this activity to assess the health of the safety management programs. As a result, more than half of the CRA lines of inquiry are focused on these programs. The CRA is expected to conclude next week and will overall include about 70 interviews, a performance demonstration, and an emergency drill; the latter two occurred this week.

Plutonium Facility–Safety Systems: On Wednesday, a Plutonium Facility cognizant system engineer for the safety significant fire suppression system identified that a Technical Safety Requirement surveillance had not been performed as required. Specifically, sprinkler heads within two areas in the facility were not inspected to ensure they could function as required. In the first instance, maintenance personnel could not enter a laboratory room because they were unable to coordinate the Radiological Control Technician support required to enter the room with its existing contamination issues. In the second instance, maintenance personnel incorrectly interpreted the requirements and believed that sprinklers above the vault did not need to be inspected because they would need to access the top of the vault to examine the subject sprinkler heads. In both cases, the maintenance supervisor inappropriately determined that the areas were inaccessible and therefore the inspection of these sprinkler heads was not necessary to satisfy the surveillance. During a critique of the event, personnel determined that the subjectiveness of the term “inaccessible” in the procedure contributed to the misinterpretation.

Area G–Safety Basis: Safety basis personnel have yet to complete the Unreviewed Safety Question Determination (USQD) and the Evaluation of the Safety of the Situation (ESS) for the Potential Inadequacy of the Safety Analysis (PISA) associated with combustible waste composition (see 12/5/14 weekly). DOE guidance indicates that the USQD should be completed within “hours or days, not weeks,” though the LANL procedure specifies 15 days and includes a provision for extension. Similarly, DOE guidance indicates that the ESS should be completed “as soon as practicable and not take more than a month,” which LANL implements with a 30 day limit and provision for extension through the Field Office. In this case, the PISA was declared on December 3, 2014, and neither extension provision was executed. Timely issuance of the USQD and ESS is important because they provide the analysis necessary for the Field Office to determine whether the operational restrictions LANL imposed are adequate to ensure worker and public safety. During 2014, three of the five PISAs declared within this organization did not meet LANL’s expectations, including a similar PISA concerning combustibles declared about a year ago (see 1/31/14 weekly) that took nearly 2 months to complete the USQD and ESS.

Chemistry and Metallurgy Research Building (CMR)–Criticality Safety: On Wednesday, LANL provided the Field Office with the results of a criticality safety review conducted by a LANL review team at the CMR. The review was performed to evaluate whether criticality issues similar to those identified in the Plutonium Facility also existed at CMR, as well as to improve the overall criticality safety performance at CMR. The review identified a number of opportunities to improve operator performance, operator training, and criticality safety postings. This review is one of many criticality safety improvement initiatives underway at LANL, the results of which have been compiled into one coordinated Criticality Safety Project Management Plan.