

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 5, 2014

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending December 5, 2014

Plutonium Facility–Safety Systems: On Thursday, the facility returned to Operations Mode for the first time in three weeks following the successful completion of a revised surveillance test of the Facility Control System (see 11/7/2014 weekly) and multiple repairs to one of the credited diesel firewater pumps.

Plutonium Facility–Resumption: On Wednesday, LANL management decided to delay the start of the contractor readiness assessment for the T Base II lathe from next Monday to January. The decision was largely based on the need ensure that the controls from the new compliant criticality safety evaluations could be implemented and integrated into operating procedures.

Weapons Engineering Tritium Facility (WETF): Last month, WETF management issued a letter to the NNSA program manager providing the program plan for activities under the Tritium Legacy Project. The project aims to reduce the current inventory of tritium from about 220 g to less than 100 g in order to align the inventory with future programmatic needs. The letter indicates the project will take 5–7 years with bulk tritium gas shipments expected to occur in the first 4–5 years. The plan does not provide specific out-year milestones, but current fiscal year elements include facility restart, equipment and program upgrades, shipment of at least one AL-M1 molecular sieve to the Savannah River Site, and loading of at least one Flanged Tritium Waste Container. Also, late last month, WETF notified the Field Office of successful completion of the third month of required monitoring on the Oxygen Monitoring System (see 10/17/2014 weekly).

Area G–Quality Assurance: This week, Area G personnel identified two occurrences where the field conditions of material-at-risk (MAR) did not match what was contained in the quality records of the MAR tracking database used to ensure compliance with safety basis limits. Area G personnel monitor MAR limit compliance using a software tool known as the Waste Compliance and Tracking System (WCATS), which was implemented in August 2013. In the first instance, in an effort to overpack remediated nitrate salt waste drums into standard waste boxes, operators did not follow the normal processes and procedures for accounting of MAR. This resulted in the volume of waste recorded in the system exceeding the actual volume of waste in the facility. In the second instance, a waste drum was discovered that was not recognized by WCATS. During the critique of this event, Area G personnel identified that during a transition of MAR tracking databases this drum had a location code that was not captured in the new WCATS. Area G personnel declared a violation of the technical safety requirements and are conducting an extent of condition review to ensure that the issues with quality records for tracking MAR in Area G are isolated to these instances.

Area G–Safety Basis: On Wednesday, Area G management declared a Potential Inadequacy of the Safety Analysis (PISA) due to the discovery of an unanalyzed accident scenario in the safety basis. This PISA is focused on newly generated transuranic waste in 55 gallon drums because there are no controls in place to limit the combustible composition of the waste. The Board's staff identified this issue during follow-up of a related PISA (see 3/28/14 weekly). During the new information process, analysts determined that multiple combustible drums involved in a fuel pool fire may not be bounded by the current accident analysis. As a result, management suspended receipt of newly generated 55 gallon drums in Area G.