

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 7, 2014

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending November 7, 2014

Plutonium Facility–Seismic Safety: R. K. Verhaagen observed a meeting in Albuquerque of a Seismic Expert Panel charged by the field office to review two separate analyses of Plutonium Facility performance during a seismic event. The panel has been assembled to identify similarities and differences between LANL's existing structural analysis of the facility and an alternate analysis sponsored by NNSA as committed by the Deputy Secretary in his memorandum to the Board dated September 28, 2012. The panel is expected to issue a report in January 2015, addressing points of concern directly impacting the Plutonium Facility's seismic adequacy as well as other points of perspective. During this initial meeting the panel identified some significant differences between the results of the two analyses that they deemed appropriate for additional investigation to better understand the root of the inconsistencies. The panel expects to meet again in San Francisco during the first weekend in December to further their deliberations.

Plutonium Facility–Quality Assurance: Late last month, facility management declared two separate violations of the Technical Safety Requirements (TSR) associated with failures to properly execute limits on material-at-risk (MAR). The facility monitors MAR limit compliance using a software program known as MAR Tracker, which management declared implemented in the summer of 2011. A review of the facility's database indicates that at least 14 critiques concerning the implementation of MAR Tracker have been performed since that time, including four associated with TSR violations. Last month's violations appear to stem from Software Quality Assurance (SQA) issues between the beta and production versions of the software. Three previous critiques going back to June of 2013 identified similar concerns and included an action to formalize MAR Tracker data change management. Further, a TSR violation in April of 2012 resulted in an extent-of-condition review and an overall assessment on MAR Tracker implementation including SQA. Preliminary planned corrective actions for the current TSR violations include to: (1) ensure MAR Tracker is compliant with SQA requirements by December 15, 2014, (2) execute a plan to identify gaps in MAR requirements and MAR Tracker by December 1, 2014, and (3) conduct a SQA assessment on MAR Tracker led by an institutional expert by May 15, 2015.

Plutonium Facility–Safety Systems: On Tuesday, the field office responded with direction to LANL management regarding the Facility Control System issue (see 10/3/14 weekly). The direction is to revise the credited surveillance procedure to require injection of a simulated or actual signal as close to the sensor as practicable upstream from the FCS and to fully verify the interlocks, trip functions and failure trips of the ventilation system fans downstream of the FCS. LANL personnel are directed to execute this revised procedure within four weeks with a provision for field office personnel to shadow its performance.

Confinement Vessel Disposition (CVD) Project: This week, CVD personnel experienced two events where continuous air monitors alarmed during bag-off operations associated with the removal of the robotic arm. In both instances, personnel were using air-purifying respirators, and responded appropriately. Radiation protection personnel are reviewing the events and determining what additional actions and measures are required prior to resuming operations.