DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 20, 2015

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending November 20, 2015

DNFSB Staff Activity: M.W. Dunlevy conducted site familiarization activities and observed the transuranic waste workshop and Area G safety basis presentation discussed below.

Transuranic Waste Management: On Tuesday, personnel from LANL, NNSA, and EM conducted a workshop focused on management of the enduring waste stream. The workshop, which was truncated by a snow delay, included discussions on the overall waste forecast, efforts to accelerate operations at the Transuranic Waste Facility (TWF), and prioritization of anticipated permit changes. LANL analysts continue to forecast a number of pinch points between waste generation and available waste storage capacity. As reported last week, the acceleration of the transition to operations for the TWF can provide important additional capacity to the system (11/13/15 weekly). During the workshop, participants highlighted that maximum benefits from the accelerated TWF schedule are reliant on permit actions. The Site Representatives note that the alignment and coordination these workshops are stimulating is essential, particularly given the need for a functioning waste system to enable key risk reduction activities at the nuclear facilities.

Area G–Safety Basis: On Thursday, LANL management presented to NNSA and EM personnel an overview of a draft revision to the Evaluation of the Safety of the Situation (ESS) for the storage of remediated nitrate salt (RNS) wastes. LANL undertook the revision to address the NNSA Field Office direction concerning the profusion of New Information pertinent to the continued safe storage of the RNS waste (see 6/26/15 weekly). Of most significance, the New Information indicated that the value of the respirable release fraction (ARFxRF) associated with RNS waste could be more than two orders of magnitude larger than the value used in the existing safety basis. LANL proposed a qualitative approach to factoring in an increased ARFxRF for the purposes of analyzing potential accident consequences and evaluating the efficacy of controls to protect the public. The Site Representatives note that this approach contrasts to an EM decision to utilize a specific new value for the ARFxRF in safety basis analysis at the Waste Isolation Pilot Plant. NNSA and EM personnel provided feedback on a number of areas including bolstering the conduct of engineering and maintenance of credited controls, improving the technical bases behind key control set points, and strengthening actions in the technical safety requirements. LANL personnel are working to incorporate this feedback prior to formal submission of the ESS.

Plutonium Facility–Restart Activities: On Wednesday, the federal readiness assessment team briefed the results of their review of Pit Flowsheet activities (see 11/20/2015 weekly). The team identified one pre-start and one post-start finding, both related to criticality safety. The team concluded that subject to satisfactory resolution of the findings the Pit Flowsheet activities are ready to safely resume. Also this week, operators successfully bisected and disassembled another pit with the robotic lathe associated with Advanced Recovery and Integrated Extraction System since receiving NNSA Field Office startup authorization on September 25, 2015. A management observation team performed oversight of this activity in accordance with the approved restart plan.