

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 15, 2016

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending April 15, 2016

DNFSB Staff Activity: C.T. Beaty, J.E. Deplitch, A.M. Hutain, and C.J. March were on site to conduct a review of the LANL emergency management program. Their review included discussions with LANL, NNSA Field Office, and Los Alamos County Fire Department personnel, observation of an exercise at the Emergency Operations Center, and walk-downs of the Plutonium Facility, Area G, and the Weapons Engineering Tritium Facility. T.L. Hunt conducted a supplemental review of the operational drill programs and abnormal response procedures at the same three facilities.

Area G—Inappropriately Remediated Nitrate Salts (RNS): Last week, following successful completion of a Management Assessment (see 4/1/2016 weekly), Area G operations personnel commenced activities to remove the lids from the standard waste boxes containing the RNS waste. Operators are performing this activity as part of the implementation of phase 1 of revision 5 of the Evaluation of the Safety of the Situation (ESS) for safe storage of the RNS waste (see 3/25/2016 weekly). To date, operators have removed 12 of the 46 lids planned for this phase. Removal actions have proceeded well—no contamination or degraded conditions have been encountered and unexpectedly no bolts have required drilling for removal. Area G personnel continue to prepare for the phase 2 pressure relief device installation effort and hope to commence the associated Management Self-Assessment late next week.

Plutonium Facility—Safety Basis: Last Thursday, the NNSA Field Office approved revision 1.1 of the facility's 2015 safety basis. The revision adds scope for a new activity, clarifies the ability to create confinement penetrations within the facility, closes two previous conditions of approval, and incorporates three outstanding ESSs associated with criticality safety, nonconforming heat-source plutonium clads, and the condition of the stand for the Isotope Fuels Impact Tester. Additionally, the revision deleted or modified previously identified vulnerabilities for some existing safety systems including the ventilation system, uninterruptable power supply, and the diesel fire pumps.

Plutonium Facility—Restart Activities: On Tuesday, the Federal Readiness Assessment (FRA) team delivered the final report of their assessment of Plutonium Facility readiness to restart Furnace, Casting, and Advanced Recovery and Integrated Extraction System (ARIES) operations. The FRA team identified two pre-start findings relating to criticality safety controls that included: 1) some operations did not have documentation demonstrating certain dimensional requirements identified in a criticality safety evaluation were being met, and 2) an approved item list in one procedure contained items that did not meet current criticality safety requirements. The FRA team also identified two post-start findings relating to emergency/operational drill programs and criticality safety. Of note, the assessment report stated that in general, the FRA team was impressed with the actions taken by Plutonium Facility management, staff, and operators to demonstrate readiness. The team recommended that upon correction of the two pre-start findings and development of a corrective action plan for the post-start findings Plutonium Facility personnel be authorized to restart these operations.