

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 4, 2014

MEMORANDUM FOR: S.A. Stokes, Technical Director
FROM: R.K. Verhaagen and J.W. Plaue
SUBJECT: Los Alamos Report for Week Ending July 4, 2014

Plutonium Facility–Criticality Safety: On Monday, the field office transmitted a letter to LANL requesting a status update associated with the resumption of programmatic activities. The field office noted that in accordance with DOE Order 425.1D, *Verification of Readiness to Startup or Restart Nuclear Facilities*, activities that have not resumed by June 27, 2014, may represent an extended shutdown and therefore could require readiness reviews prior to restart. The field office requested by July 14, 2014, a list of programmatic fissile material operations that: (1) resumed as of June 27, 2014; (2) LANL considers in extended shutdown; and (3) did not resume as of June 27, 2014, but that LANL does not consider in extended shutdown. For those operations that LANL does not consider in extended shutdown, the field office requested a detailed discussion of the rationale for this conclusion.

On Tuesday, the field office received a copy of the LANL Director's memo dated June 18, 2014, delegating resumption release authority for all remaining programmatic operations to the Principal Associate Director for Weapons Programs. The scope of this delegation excludes electrorefining, casting, and aqueous processing.

Also on Tuesday, program management informed the Site Representatives that program personnel would begin to place turnings and small pieces of plutonium metal into water resistant containers during the next few weeks. LANL's approved analysis in the Justification for Continued Operations demonstrates that accumulations of these materials in quantities greater than 500 g can result in a criticality, thus a water resistant container is required. Currently, multiple locations in the facility do not meet this requirement and do not have other compensatory measures implemented to ensure safety until these materials can be repackaged to comply with the Justification for Continued Operations controls.

RANT Shipping Facility–Fire Protection: On Tuesday, RANT management declared a Potential Inadequacy of the Safety Analysis (PISA) regarding fluctuations in the pressure of the firewater supply. As part of a lab-wide assessment on fire water supply, field office personnel obtained the results of system pressure monitoring performed by the Utilities and Institutional Facilities division and completed in April that indicated multiple instances during work hours where the water pressure dropped below the minimum specified in the Technical Safety Requirements (TSR). RANT encountered a similar issue in 2012 when pressure fluctuations in the firewater supply (see 8/3/2012 weekly) occurred whenever the facility toilet was flushed. Reportedly, the results of this monitoring were provided to RANT personnel; however, PISA related actions were only initiated after field office action on June 18. The field office assessment also preliminarily identified issues with maintenance and control of pressure reducing valves in the water supply, including a concern as to whether LANL was maintaining components supplying water to a nuclear facility fire suppression system with the appropriate consensus standard (National Fire Protection Association or American Water Works Association).

RANT management conducted a critique and determined that no compensatory measures were necessary with the facility currently in cold standby mode. The only other outcome was to execute the PISA process and determine whether TSR changes would be required. The Site Representative notes that critique participants did not bring the pressure data nor other related procedures or documentation and performed only a cursory effort to gather facts or otherwise discuss the apparent related issues.