

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 17, 2013

MEMORANDUM FOR: Steven Stokes, Acting Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending May 17, 2013

DNFSB Staff Activity: Today, the lead from the Functional Management Review (FMR) on the safety basis process (see weekly report dated April 19, 2013) briefed the Board's staff on the team's observations and recommendations. Overall, the team identified a number of recommendations for improvements, but concluded that acceptable controls existed for the scenarios reviewed and none of the recommendations required immediate attention. Notably, the team recommended using the annual updates to: ensure documentation of key assumptions, consistently distinguish worker locations, document bases for deviations from the preferred hierarchy of controls, and verify legacy assumptions and bases.

Management: Last week, the Laboratory Director announced a voluntary separation program (VSP) targeting a reduction in the workforce of up to 600 personnel. There are limited personnel excluded from participation and the expectation is that management will approve most interested applicants. Applicants will be notified of their approval on June 3 and will be required to depart the laboratory by June 13, 2013. This short time frame will create a challenging environment for transition and turnover of duties for any nuclear facility personnel. The contractor is examining methods to manage this period through deliberate operations.

Safety Basis: Contractor personnel are currently developing, and Livermore Field Office will need to review and approve, several critical analyses, including the following:

- Resolution of 5 Potential Inadequacies of the Safety Analysis (PISAs), of which 3 so far have associated positive Unreviewed Safety Questions and may require Justifications for Continued Operations
- Redevelopment of the safety basis for the Waste Storage Facilities
- Annual updates for the Plutonium Facility and Tritium Facility due by the end of June
- Safety basis amendments to support nitrogen system repairs, fire water tank reconfigurations, and changes to the oxidation furnace system

This situation could be exacerbated by impacts of the VSP. The Site Representative believes that management should consider staggering these deliverables to the extent practicable. Load-leveling will facilitate improved quality and enable near-term implementation of some recommendations from the FMR.

Plutonium Facility: On Tuesday, the Facility Manager declared a PISA associated with a pulsed bed reactor furnace used for the oxidation of plutonium nitride. The PISA reflects the identification a new mechanism for the release of plutonium from the process vessel. The release mechanism involves elevated pressures, which creates higher airborne release fractions and results in a significantly higher unmitigated consequence to the public. Based on current information, the new mechanism will not impact the mitigation afforded by the existing credited controls (e.g., glovebox, room ventilation system, etc.). Questions leading to the declaration of the PISA were identified during a Red Team review of a safety basis amendment for this process.