

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 2, 2013

MEMORANDUM FOR: S.A. Stokes, Acting Technical Director
FROM: R.T. Davis and R.K. Verhaagen
SUBJECT: Los Alamos Report for Week Ending August 2, 2013

Weapons Engineering Tritium Facility (WETF): LANL submitted a proposed safety basis improvement plan for WETF restart activities to the field office for review and concurrence. The plan is designed to support completion of both Contractor and Federal Readiness Assessments in September and October of this year respectively. The letter from the Associate Director for Nuclear and High Hazard Operations that transmitted the plan acknowledges that there are open NNSA comments on the currently submitted but not approved safety basis, but notes that effectively addressing all NNSA issues will delay startup. The letter suggests that the plan balances safety basis improvements versus expediting risk reduction through restart this calendar year. The plan identifies facility activities (repairs, modification, and testing) and proposed safety basis improvements that must be completed prior to facility restart.

The plan commits to develop a Project Execution Plan (PEP) for disposal of legacy waste items that have accumulated in WETF over the years. These items originated from work that has been done in WETF as well as from closure of tritium-capable facilities at LANL and other DOE sites. The disposition of these legacy items is essential to reducing risk in the facility as it represents nearly half of the WETF tritium inventory, and some of these legacy items have leaked tritium in the recent past (see 2/15/13 and 6/7/13 reports). The PEP will identify the strategies, timelines, program management approach, resources, and budget requirements necessary to dispose of the legacy items. LANL has established a multi-disciplined project team comprised of personnel from Operations, Waste Management, and Programs to develop and manage this project.

Area G – Safety Basis: This week, the field office completed a Safety Evaluation Report (SER) and approved the Area G Basis for Interim Operation and associated Technical Safety Requirements. This safety basis, which was submitted in April 2013 and resubmitted in June 2013 to resolve field office comments, is based on a new Hazard Analysis that provides clear linkage to control selection and includes significant reduction in overall Area G material-at-risk inventory limits. The safety basis also addresses issues identified in the Board letter dated November 19, 2012. The field office approval identifies that not all safety basis comments have been adequately resolved and provides six directed actions including the following four actions that require a proposed resolution by October 2013:

- Identify Specific Administrative Controls for Safety Management Programs where risk reduction (i.e. frequency and consequence) is applied in the hazard analysis.
- Remove plume meander from atmospheric dispersion modeling for the fire accident scenarios.
- Use conservative damage ratios for seismic events or provide adequate justification for the damage ratios selected.
- For the forklift propane tank puncture and resulting blowtorch scenario, evaluate the consequences in the accident analysis to appropriately derive required controls.

The other two directed actions involve use of DOE-STD-3009 control selection hierarchy and resolution of additional field office comments by the next annual update. Two members of the NNSA safety basis review team provided minority opinions that did not recommend approval of the Area G safety basis. LANL plans to implement this safety basis at Area G by the end of September 2013.