

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 12, 2010

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B.P. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending March 12, 2010

Plutonium Facility – Isotopic Fuel Impact Test (IFIT) Facility: This week, NNSA completed the Readiness Assessment (RA) for operation of the IFIT Facility to support testing required by NASA. The RA team recommends that operations commence following site office approval of closure for pre-start findings and corrective action plans for post-start findings. The team identified five pre-start findings including issues with the design and procurement of safety significant components, procedure inconsistencies/errors, operator qualifications/work authorization status and unanalyzed hazards associated with a crane.

Transuranic Waste Operations: LANL has not performed transuranic waste drum venting since the November 2008 drum deflagration that occurred during remote drum venting operations in Area G. The remote drum venting operation was performed in a tent containment enclosure inside of Dome 33. In April, LANL plans to begin drum venting operations in a robust enclosure that will be provided by a subcontractor. The same enclosure unit was used for drum venting operations at the Savannah River Site. The Joint Evaluation Team met this week to discuss the plans for evaluating readiness for this activity and will recommend a laboratory RA to the site office. LANL estimates that between 1,000 and 3,000 drums (including both above and below ground drums) will require installation of filtered vents using this system.

Weapons Engineering Tritium Facility (WETF): Last week, LANL declared a TSR violation based on exceeding the combustible loading limits for two WETF rooms. LANL also declared a Potential Inadequacy in the Safety Analysis (PISA) due to inadequate documentation for calculations associated with combustible loading limits (this issue was later declared a positive unreviewed safety question). These issues resulted from evaluation of issues identified during a site office safety system oversight review. In accordance with the Limiting Condition of Operation (LCO) action statement and based on previously identified issues with the fire suppression system, WETF was placed in warm standby and a fire watch patrol was established every hour (the LCO requires a fire watch patrol every two hours).

The combustible loading limit LCO also requires WETF to comply with the limits within one week (due Thursday of this week) or to begin actions to place the facility in cold standby mode (i.e., all but residual quantities of tritium removed from process areas). The actions required to comply with the combustible limits could not be completed by Thursday of this week (a TSR revision will likely be needed). In addition, placing the facility in cold standby would require movement of tritium in systems that are not currently operable and require readiness activities to restart. As a result, LANL submitted a Justification for Continued Operation that allows a 60 day extension for the completion time of the LCO action statement (i.e., coming into compliance with the combustible loading limits). The JCO requires WETF to remain in warm standby mode and to continue hourly fire watch patrols. LANL also committed to providing a path forward for resolving this issue within 30 days. On Thursday, the site office completed a Safety Evaluation Report that approved the LANL JCO.