

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 12, 2010

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

Mr. Broderick was out of the office this week.

Radioactive Liquid Waste Treatment Facility (RLWTF): Last week, RLWTF personnel installed a temporary modification that allowed backflush of waste tank TK-6 and resolved the sludge blockage issue discussed in the January 29th site rep weekly. Since resolving this issue, LANL has completed several drum tumbling evolutions to produce cemented sludge drums for transfer to Area G and ultimately for disposition at the Waste Isolation Pilot Plant. On Thursday, RLWTF also received an acid waste transfer from the Plutonium Facility.

Plutonium Facility – Fire Suppression System: LANL recently completed upgrades and repairs to deficient areas (i.e., insufficient water flow density) of the fire suppression system in Room 201. Last Friday, LANL submitted a revision to the Justification for Continued Operations (JCO) to address restart of programmatic operations in Room 201 (i.e., heat source plutonium operations). The JCO revision also provides clarification for returning other deficient laboratory floor areas to increased operations as fire suppression system flow density issues are resolved.

Transuranic Waste Operations – RANT Shipping Facility: In July 2009, a Potential Inadequacy of the Safety Analysis was identified at the RANT shipping facility because facility smoke and heat detectors were identified as not complying with NFPA 72 requirements. These issues were identified by the site office during a safety system oversight review of the RANT safety significant fire suppression system. A JCO was approved that included compensatory measures (fire observer) when material-at-risk was inside the facility. The RANT fire suppression system uses a pre-action valve that must be actuated (based on a signal from the smoke and heat detectors) for the system to perform its safety function. LANL recently submitted a safety basis change that removes the smoke and heat detectors as credited components. Instead, LANL plans to make a system change that will result in pre-action valve actuation upon loss of nitrogen in the dry pipe system. Loss of nitrogen would occur when a sprinkler head activates due to heat from a fire. The site office is currently reviewing this safety basis change.

Weapons Engineering Tritium Facility (WETF): Last Friday, LANL submitted a safety basis strategy for pursuing safety basis changes and a 10 CFR 830 compliant Documented Safety Analysis (DSA) and associated Technical Safety Requirements (TSR). WETF is currently operating under a 2002 safety basis (with TSR page changes as recent as December 2009). In October 2009, the site office provided comments on most recently submitted DSA. The proposed WETF safety basis strategy includes three phases: 1) the initial near-term safety basis changes required to support risk reduction activities (i.e., tritium gas handling operations to support unloading containers that exceed their maximum allowable working pressure and restart of function testing operations); 2) an annual update that will address approximately half of the site office comments and 3) evaluation of WETF activities as part of the Integrated Nuclear Planning process and submittal of a safety basis that will address the remainder of the site office comments.