

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 11, 2009

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B. P. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending December 11, 2009

Staff member M. Moury and outside expert B. Matthews were onsite this week to meet with site office and LANL personnel to discuss near term actions in response to Recommendation 2009-2.

Plutonium Facility: This week, the NNSA site office transmitted to NNSA Headquarters (NA-10) a document describing the seismic safety posture of the Plutonium Facility. The site office document discusses the following: • planned and completed near-term actions intended to reduce the probability and consequence of a seismically-induced fire scenario, • differences in assumptions and accident consequence results between the December 2008 DSA and the recently submitted 2009 annual DSA update, • accident consequence sensitivity to changes in various analytical assumptions and parameters, and • the attendant tradeoffs and rationale for not performing certain near-term actions.

Radioactive Liquid Waste Treatment Facility Replacement (RLWTF-R) Project: This week, NNSA Headquarters completed the field work for the Technical-Independent Project Review (T-IPR) of the RLWTF-R Project. The final report is expected to be complete in January. During an outbrief with site office and LANL personnel, the team reported that 36 criteria areas out of approximately 200 were graded as red, which require resolution prior to critical decision-2 (CD-2). However, the T-IPR team also noted that many of these issues had clear paths to closure prior to CD-2. Several key unresolved issues were identified including compliance with central technical authority guidance on chemical hazards, LANL configuration management of project documents, and resolution of 60% design review comments that may impact cost and scope baselines (LANL disputes this issue).

Radioactive Liquid Waste Treatment Facility: LANL requested and the site office approved an evaluation of the safety of the situation (ESS) for a 2005 Potential Inadequacy of the Safety Analysis (PISA) that was identified due to degraded transuranic liquid waste processing equipment. Since the PISA was identified in 2005, LANL has repaired or replaced the degraded equipment to support resumption of transuranic liquid waste processing operations, which have been shutdown since 2006. The ESS eliminates a number of compensatory measures that had been identified in response to the PISA. LANL has also completed closure of pre-start findings identified during the laboratory readiness assessment and will resume transuranic liquid waste processing following site office verification of closure packages, which will occur as early as next week.

Transuranic Waste Operations: The RANT shipping facility has begun an outage that will include physical modifications to address operability issues associated with the facility's safety significant fire suppression system (FSS). The RANT FSS is a dry pipe system that requires pre-actuation which had been triggered by heat or smoke detectors. In August, an NNSA site office safety system oversight assessment identified National Fire Protection Association (NFPA) code non-compliances associated with the heat and smoke detector configuration that rendered the system inoperable. TSR-level compensatory measures requiring fire watches at RANT can be lifted upon successful completion of physical modifications and testing, as well as, approval and implementation of a safety basis page change that reflects the new pre-action arrangement (site rep weekly 9/4/09).