

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 22, 2010

MEMORANDUM FOR: T. J. Dwyer, Technical Director
FROM: B.P. Broderick and R.T. Davis
SUBJECT: Los Alamos Report for Week Ending October 22, 2010

Material Disposal Area (MDA)-B: This week, NNSA Headquarters approved a request submitted by the Los Alamos Site Office to exempt MDA-B operations from the requirements of 10 Code of Federal Regulations (CFR) 830, Subpart B, *Safety Basis Requirements*. This exemption request was prompted by two recent events where quantities of material at risk (MAR) were excavated at MDA-B that exceeded the facility's MAR limit. These events undermined confidence that MDA-B operations could be conducted without unearthing levels of MAR that exceed the hazard category 3 threshold (0.52 ²³⁹Pu-Equivalent Ci) that invokes 10 CFR 830 requirements to develop and implement a Documented Safety Analysis and Technical Safety Requirements.

The site office request stated that an exemption is necessary for MDA-B environmental restoration activities to complete prior to the deadline imposed by Consent Order agreement with the state of New Mexico. The request also asserted that the exemption is justified because the engineered and administrative control set implemented under the MDA-B Facility Safety Plan is essentially the same suite of controls that were originally derived in a 10 CFR 830-compliant safety basis prepared and approved when MDA-B was considered a hazard category 3 facility. The exemption covers MDA-B operations involving MAR up to the hazard category 2 threshold quantity of 56 ²³⁹Pu-Equivalent Ci (PE-Ci), but requires formal response actions if MAR exceeds 5 PE-Ci.

Prior to LANL resuming operations at MDA-B, the NNSA site office must issue a letter affirming that the Facility Safety Plan and associated procedures have been adequately revised and implemented to comply with the terms and conditions specified in both the site office exemption request and the headquarters approval. NNSA has also directed LANL to submit any future changes to the Facility Safety Plan and associated procedures that affect the MDA-B safety envelop to the site office for concurrence before implementing the changes.

Chemistry and Metallurgy Research Building (CMR): To continue operating, CMR is required to implement its new DSA and TSRs prior to January 1, 2011, when the current CMR Basis for Interim Operations and interim TSRs expire. This week, after extensive work by facility personnel to implement the new safety basis, an independent LANL team began the formal Implementation Verification Review (IVR) that is required before CMR can officially transition to the new DSA and TSRs. The IVR team immediately noted a number of potential issues related to time-intensive TSR-level surveillance requirements that have not been performed prior to the review, but are scheduled to be performed prior to declaring that the new DSA and TSRs are implemented. The IVR team intends to complete their assessment on November 1st and issue a final report on November 12th (site rep weekly 6/4/10).

Readiness: DOE Order 425.1D, the most recent revision of the directive governing verification of readiness to startup or restart nuclear facilities, was formally incorporated into the LANL Management and Operating contract in late September. This week, LANL management submitted for NNSA site office review and approval a revision to the laboratory institutional procedure on readiness verification that reflects changes and new requirements from the revised Order.