

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 1, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: T. D. Burns Jr. and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending July 1, 2005

Radioactive Liquid Waste Treatment Facility (RLWTF): The Interim Safety Basis for caustic tank removal and replacement activities was approved by NNSA this week. It is contingent upon several prerequisite actions being completed; the most significant of which is emptying the collocated acid tank. The equipment necessary to process the acid waste is in less-than-ideal condition and several mitigative options are under evaluation. Execution of any of the options will require Resumption Review Board approval. Currently, LANL believes they can obtain the necessary approvals and complete the caustic tank replacement by early fall.

Plutonium Facility: NNSA has completed their Operational Readiness Review (ORR) for the TA-55 safeguarded trailer pad. The final ORR report is in preparation and will not be issued until next week. Numerous pre-start findings were identified, including: inadequate review of industrial hazards, shortcomings in emergency management, insufficient basis for excluding criticality accident alarms, and an unresolved fire protection exemption. Resolution of these issues will delay start-up of the pad beyond NNSA's July 1 startup goal (site rep weekly, 6/24/05). NNSA HQ has indicated they intend to verify closure of select pre-start issues prior to authorizing operations to commence.

Conduct of Engineering: The NNSA site office completed a safety system oversight review of the systems engineering program at the TA-16 Weapons Engineering Tritium Facility (WETF). The review focused on system engineer training and qualification, configuration management, and surveillance. The team found that although the system engineers were knowledgeable and actively pursuing their qualifications, they should be allowed more time on the floor to monitor their systems. Configuration management processes for programmatic equipment were found to be good, but similar processes for facility equipment were disjoint and confusing. No findings were noted with regard to the surveillance program; however, the team did observe that the facility was slow to respond to previously identified in-service inspection issues.

Authorization Bases: This week, NNSA approved LANL's latest revision to their nuclear facilities list (Rev. 6). This list is intended to capture all hazard category 2 and 3 facilities at the laboratory and identifies their numbers as 18 and 10, respectively. These numbers include the relatively static environmental remediation sites.

Chemistry and Metallurgy Research Facility (CMR): In light of uncertainty regarding the number and implications of suspect welds in facility safety and support systems, NNSA has mandated that LANL reduce the allowable material-at-risk (MAR) in CMR from 20.2 kgs of plutonium equivalent to 9 kgs. This reduction significantly lowers the potential unmitigated accident consequences postulated in the facility safety basis; but not below the evaluation guideline of 25 rem. Although the suspect welds call into question the reliability of the credited safety features (fire suppression and ventilation), NNSA has decided to accept the residual risk of continued facility operations subject to near-term implementation (by July 12th) of the new MAR limits.