

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 2, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending September 2, 2005

Fire Protection: LANL has submitted to the NNSA Site Office a strategy to address fire protection deficiencies and achieve site-wide improvements, as requested by a Board letter dtd 5/31/05. It includes proposals for increasing staffing, addressing the Baseline Needs Assessment, and completing site-wide fire alarm system replacement via a budget line item. LANL requested comments by Sep 9.

Plutonium Facility (TA-55): LANL has recommended to NNSA the following prioritized upgrades to improve ventilation reliability and reduce risk (site rep weekly 8/5/05): complete installation of a new diesel generator; design and install switchgear upgrades and a new uninterruptible power supply; replace confinement doors and certain aging components in the facility control system; and reinforce internal ventilation ductwork to meet current seismic requirements. Portions of these upgrades are included in the TA-55 Reinvestment Project. LANL is also finalizing a re-analysis of accidents that rely on building confinement ventilation as the primary control. Results are expected shortly.

NNSA HQ (NA-10) is the startup authority for the TA-55 safeguarded trailer pad and has approved a path-forward for startup (site rep weeklies 7/8/05, 8/19/05). Key elements include NNSA Site Office (LASO) verification of readiness to start, and NA-10 and NNSA Chief of Defense Nuclear Safety (CDNS) review of issue closure packages. NA-10 is also requiring NA-10 & CDNS review and NA-10 approval of LASO corrective actions and plans for addressing federal oversight deficiencies.

Waste Operations: Transuranic waste repackaging in the TA-50 Waste Characterization, Reduction, and Repackaging Facility (WCRRF) remains suspended due to glovebox concerns; timely resolution is needed to support LANL risk reduction (site rep weekly 8/5/05). This has evolved into a safety basis issue since (a) the potential to pressurize the glovebox is an unanalyzed accident; (b) isolating air supply to prevent the accident constitutes a modification and a new control; and (c) glovebox vacuum is marginal in the event of a breach. WCRRF's safety basis is poor; it consists of a 5-year-old hazard analysis and interim technical safety requirements. NNSA has also directed that WCRRF shut down within 1 or 2 years; therefore, extensive facility or safety basis upgrades may not be worthwhile.

Los Alamos Neutron Science Center (LANSCE): Portions of LANSCE are designated as hazard category 3 (HC-3) nuclear facilities, and LANSCE operates under a multi-part safety basis that is more than 4 years old and intended to comply with both nuclear facility and accelerator safety requirements (site rep weekly 1/9/04). NNSA recently disapproved a LANL recommendation to consolidate the safety basis and operate LANSCE solely to the accelerator safety requirements in the applicable DOE Order (DOE O 420.2B). NNSA asserts that this order's exclusion of accelerators from the Nuclear Safety Management Rule (10 CFR 830) is inappropriate for LANSCE since LANSCE's radioactive inventory exceeds the HC-3 threshold and may even exceed the HC-2 threshold. The path-forward for LANSCE to achieve an updated set of necessary and sufficient safety basis controls is uncertain.

TA-21 Tritium Facility: NNSA has approved downgrading the TA-21 Tritium Science and Fabrication Facility (TSFF) from Hazard Category 3 to radiological. Neutron Tube Target Loading continues pending transfer of that mission to Sandia, after which TSFF will begin decommissioning.