

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 22, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending June 22, 2007

Plutonium Facility (TA-55): This week, LANL completed the Director's Assessment of the TA-55 Plutonium Facility; the report is in preparation. The assessment included more than 200 interviews, 100 document reviews, and 50 observed evolutions. Some of the team's preliminary observations included: • PF-4 is LANL's signature nuclear facility and should be held to the highest level of asset management, commensurate with its value to LANL's continuing role; • work at TA-55 is performed safely overall, primarily because of the experienced personnel (many approaching retirement); • implementing institutional improvements (e.g. in operations, engineering, maintenance, and configuration management) warrants priority; • slow progress on work control corrective actions is a continuing risk; • there are vulnerabilities in relying on LANL's existing waste facilities (i.e., RLWTF, Area G) but no implementation plan for addressing newly generated transuranic or liquid waste for the next two decades.

As briefed this week, the site reps believe that this assessment establishes a comprehensive and timely baseline of the facility's needs and conditions; the facility should also be commended for thoroughly communicating its recognized issues and plans to the assessment team.

Transuranic Waste Operations: Completion of the contractor operational readiness review (ORR) for the WCRR waste repackaging facility has slipped until next Wednesday to allow additional assessment of the safety basis functional area. Open lines of inquiry are focused on the facility's ability to successfully perform surveillances and inspections that verify effective implementation of credited controls. LANL will present a schedule for issue closure and for the conduct of a federal ORR after the contractor review and report are finalized next week.

NNSA has approved an amendment to the basis for interim operations (BIO) for the RANT waste shipping facility that will increase the inventory limit inside the building to allow shipping high-activity waste drums (site rep weekly 4/27/07). The amended BIO features reduced predicted accident consequences based on data from the new DOE Standard 5506, re-categorization of some engineered controls from safety-class to safety-significant, and new administrative controls. LANL plans to submit a BIO compliant with the Nuclear Safety Management rule (10 CFR 830) by the end of FY07.

Los Alamos Neutron Science Center (LANSCE): In response to the DOE General Counsel decision that LANSCE is an accelerator facility exempt from 10 CFR 830, LANL is working on a safety assessment document (SAD) per DOE Order 420.2B; it's targeted for September and will ultimately serve as the facility's safety basis (site rep weekly 10/20/06). This week, NNSA approved an extension to the existing set of 5 safety basis documents to provide a basis for continued LANSCE operation until the SAD can be approved and implemented.

NNSA has also approved a request to perform dynamic experiments using up to 8 grams of plutonium metal and 4 grams of high explosives (HE) in the proton radiography dome at LANSCE. Experiments will be conducted in a robust vessel designed to contain detonations of up to 10 lbs. of HE; experiments that would cause bulk melting of plutonium samples are prohibited.