

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 25, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending May 25, 2007

Federal Oversight: On Thursday, NNSA transmitted to LANL a conduct of operations assessment of nuclear facility control room activities, and shift routine and operating practices. NNSA facility reps assessed their respective facilities, and collectively reported 9 observations, 3 strengths, 0 findings; the assessment generally concluded that the facility gap analyses in these areas were accurate.

Quality Assurance (QA): Last week, LANL provided NNSA a two-year plan for implementing the recently approved QA Program (site rep weekly 3/16/07). Key steps include: responsible associate directorates (RADs) perform gap analyses in July; RADs submit objective evidence packages in Dec 2007; RADs have programs in place in Mar 2008; LANL perform effectiveness reviews by Mar 2009.

Authorization Basis: This week, NNSA approved a justification for continued operation (JCO) allowing the Chemistry and Metallurgy Research Building (CMR) to operate while removing 6 toxic gas cylinders whose presence violates the safety basis; the non-compliant condition has existed for nearly 3 months (site rep weekly 3/2/07).

Similarly, at Area G, 34 unvented drums have been staged in violation of the approved safety basis, without a JCO, since being discovered in October 2006. Utilization and timeliness of the JCO process continues to warrant improvement (site rep weeklies 2/23/07, 10/27/06).

Transuranic Waste Operations: On May 9th, the RANT shipping facility found Pu-238 and Pu-239 on an in-line filter while drawing a vacuum on a TRUPACT shipping vessel. The TRUPACT trailer is parked at RANT pending development of a path-forward to unload the drums and decontaminate the vessel. Shipment of single-barrier high-wattage drums is suspended, but other shipments continue.

The management self-assessment (MSA) for repackaging high-activity drums starts next Tuesday and should complete June 7th. LANL has determined that at least 72 of the 235 affected drums (30%) meet WIPP requirements; the remainder (at least 156) require removal of prohibited items and repackaging in the WCRR facility; this is scheduled to start in August and to finish by end of Jan 2008.

While the progress on high-activity drums is encouraging, the site reps observe that lower activity drums (i.e., those less than 56 Ci) also drive many Area G accident scenarios and represent an enduring hazard at the current shipping rate. The rate has not improved over that reported in January (i.e., ~220 drums per month, site rep weekly 1/5/07). The 8 kCi shipped during the first eight months of this fiscal year is also comparable to the transuranic waste that TA-55 expects to generate during each of the next 4 years as it addresses its residue backlog; an option to accelerate decoupling TA-55 waste disposition from Area G is apparently not being pursued (site rep weeklies 4/27/07, 3/2/07).

Many legacy waste drums (potentially 70 % or more) will require remediation in WCRR – this is probably the rate-limiting step; however, prior plans to fund a second shift in WCRR this fiscal year have been discontinued. Extrapolation indicates that, at current rate, it could be another 8 to 11 years before the Area G above-ground transuranic waste inventory is eliminated as a hazard. Under the same assumptions, retrieval and shipment of the comparable below-ground inventory doubles the period.