

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 9, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending November 9, 2007

Minnema was on site this week observing the DOE-HS biennial review, which concluded this week.

Operations: LANL has consolidated several Facility Operations Director (FOD) organizations for radiological facilities and has placed explosive operations under the FOD responsible for WETF.

Transuranic (TRU) Waste Operations: Waste operations are struggling to address work control, safety basis, and formality of operations issues. Recent events include: • Last Friday, Area G's radiological-scale drum repackaging operation slightly exceeded its procedural limit (0.56 Ci); LANL has concluded that this limit is not controlled by the safety basis; however, by extrapolating this logic, Area G could repackage high-activity drums, even though Area G lacks safety-related controls for such operations; LANL intends to include a material-at-risk limit for this activity in the upcoming Area G safety basis update. • Based on guidance from the criticality safety group, Area G issued a standing order and procedure for segregating the high-fissile content drums that were reported last week. • Area G also lifted restrictions that had been imposed in response to the criticality safety infraction and resumed limited drum movements to support TRU waste shipments from RANT.

Given the rate of safety and compliance issues experienced in recent weeks, LANL management effected a safety pause of the environmental programs directorate, including TRU operations, on Wednesday. LANL management also committed to perform an external review of environmental programs operations within the next few weeks using senior-level expertise via corporate reach-back.

LANL has recognized for some time the nature of most of these issues and the need for TRU waste facilities to evolve to an efficient, disciplined, and organizationally integrated state. In 2005, LANL provided NNSA an improvement plan designed to achieve such a state. In early 2006, NNSA added this improvement plan to appropriate authorization agreements. Then, in mid-2006, LANL curtailed the plan for budgetary reasons (site rep weekly 8/18/06).

Weapons Engineering Tritium Facility (WETF): Facility management declared two Potential Inadequacies of the Safety Analysis (PISA) this week based on issues raised during the DOE-HS biennial review. One PISA related to whether glovebox pressure relief devices (known as bubblers) could perform their credited safety functions in their current configuration. The other PISA involved a surveillance requirement for the fire suppression system whose acceptance criterion may not be adequate to ensure credited system operability. WETF management issued several standing orders as an interim response to the PISAs until longer-term solutions can be investigated and developed. One standing order restricted the processing of pressurized hydrogen isotopes in gloveboxes. The other imposes a more conservative threshold value for surveillance results that would prompt appropriate actions to verify system operability.

Plutonium Facility (TA-55): TA-55 continues to struggle with infrastructure challenges. This week, TA-55 experienced issues with its paging system and chlorine detection system. Both of these safety significant systems are antiquated and require upgrades or replacement (site rep weekly 7/20/07).