

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 10, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending February 10, 2006

Anderson was here this week augmenting site rep coverage.

Radiological Facilities: LANL has put materials in a safer configuration due to concerns that eutectic formation might breach containers during a fire; another concern is that the encapsulation credited by DOE STD-1027 may also be ineffective in a fire. Analysis is underway to better define the concerns.

Integrated Work Management (IWM): LANL management attention has increased on improving IWM implementation and pursuing human performance initiatives (site rep weekly 11/4/05). Some of last year's pilots, such as IWM mentors, appear successful and are embraced by the workers; increased management presence on the floor and focused walk-arounds have also been effective. However, it is unclear right now how far and fast improvements can be driven before contract transition on June 1st.

Authorization Basis (AB) Verification: The NNSA Site Office (LASO) is struggling and lacks internal consensus on the level of federal and contractor verification required following AB changes, particularly following AB updates for on-going activities. Such changes are not explicitly included in the DOE startup and restart order (O 425.1C). For their part, LANL is developing an implementation validation review (IVR) process that seems based on proven best-practices at other sites.

Plutonium Facility (TA-55): Vault recovery from the Dec 19th contamination event continues (site rep weekly 1/13/06). TA-55 is moving suspect containers out of the vault and into glovebox lines for inspection and repackaging. This week, work slowed when one bulged inner can and one rusted-to-failure inner can were discovered and when concerns were raised on potentially pyrophoric contents in other cans; these represent abnormal conditions that warrant special attention. In other areas, a PF-4 evacuation drill last Thursday (2/2) revealed issues in emergency response and in drill simulation and control; the drill was complicated by contamination found on clothing for two PF-4 workers. TA-55 also reported last week that a sliding door between two glove-boxes fell and momentarily pinned a worker's gloved hand without injuring the worker; as a result, TA-55 is looking for those systems that need frequent repair and that should be placed in a routine scheduled maintenance program.

Pu-238 Operations: TA-55 management has authorized resumption of the bench-scale aqueous scrap recovery operation based on completion of a lab readiness assessment, on closure of pre-start findings, and on verification of implementation of applicable interim technical safety requirements (site rep weekly 1/20/06). Material condition of this operation has greatly improved in recent weeks. Actual startup is expected next week using a deliberate startup plan and under increased oversight.

Chemistry and Metallurgy Research Building (CMR): CMR reported this week that a Wing 5 worker found a high level of localized Am-241 contamination on the side of his hand. The contamination was removed with tape; nasal swipes were negative; the source is being investigated.

Lightning Protection: Several nuclear facility ABs cite lightning protection as performing a nuclear safety function. LANL is investigating questions on completeness of recent system inspections, including making a judgement on system operability in each nuclear and high hazard facility.