

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 15, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: B. Broderick and C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending June 15, 2007

Burnfield, DeLoach, and Slater-Chandler were on site this week participating in DOE workshops on the line oversight contractor assurance system, federal oversight awareness, and the QA roadmap.

Dual Axis Radiographic Hydrodynamic Test (DARHT) Facility: The DARHT Facility recently performed its first fully-contained hydrotest using an engineered vessel. This new containment philosophy prevents the release of hazardous materials during hydrotests and could facilitate increasing the test rate by eliminating the need for post-shot cleanup at the firing site. Also, the second axis has demonstrated multi-pulse capability and will soon begin commissioning.

Formality of Operations: LANL has proposed to NNSA new milestone dates for implementing conduct of operations, engineering, and maintenance; however, integration with conduct of training is not apparent. Making comparable improvements to institutional training are integral to overall success.

Transuranic Waste Operations: The contractor operational readiness review (ORR) started Tuesday for repackaging high-activity waste drums in the WCRR facility, based on management's judgement that the 13 open pre-start findings from the management self-assessment (MSA) are tractable. The contractor ORR team is proceeding deliberately and should finish next week.

The facility has had difficulty demonstrating proficiency during drills and evolutions, largely because of issues such as (a) the level of maturity of procedures and completeness of records, and (b) the degree of simulation. While the former could have been avoided by a longer shakedown period after the MSA (i.e., at least a week), the latter would likely not have been recognized until operations were reviewed by an experienced ORR team – validating the decision to perform a contractor ORR.

Contractor Assessments: The institutional assessment of TA-55 that began last week had a slow start (e.g., CRADs finalized last Friday); field work is extending into next week. This is a new assessment process for LANL that needs to evolve; it is showing potential to improve management's operational awareness and its ability to identify and correct adverse conditions early.

Plutonium Facility (TA-55): NNSA has approved a safety basis revision to support nuclear material radiography in the tunnel (site rep weekly 3/23/07). The revision includes a new limiting condition for operation (LCO) action statement that allows 8 hours to restore building confinement integrity if lost or if disabled intentionally when no alternatives exist, such as during upcoming tunnel modifications. NNSA approved the revision subject to – prior to such intentional disablement – LANL notifies the NNSA facility rep, confirms safety basis assumptions are not significantly affected (e.g., differential pressures are maintained), and has material staged for quickly restoring confinement in an emergency.

TA-55 operations continue to be impacted by equipment failures, highlighting infrastructure needs. This week, the aqueous processing area wet vacuum system went down when the one operating pump failed while the other pump is undergoing extensive repair; this restricts solution transfers. Last Wednesday, PF-4 went into standby twice due to a facility power loss and to Facility Control System issues. The trolley systems, key to material moves between glove-box lines, are experiencing failures.