

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 16, 2004

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers, Jr.  
**SUBJECT:** Los Alamos Report for Week Ending April 16, 2004

**Weapons Engineering Tritium Facility (WETF):** The NNSA Operational Readiness Review (ORR) for Building 450 startup and WETF safety basis verification starts Monday.

**Welding Issues:** Last week, LANL declared a potential inadequate safety analysis (PISA) due to existing suspect welds on nuclear safety systems (site rep weekly 3/26/04). LANL has issued a site-wide notice to specify proper controls for new welds, and LANL systems engineers are visually assessing existing welds in nuclear safety systems, such as WETF tritium systems and TA-55 Pu-238 glovebox supports. Certified weld inspectors will inspect suspect welds found during these reviews. Initial assessment results should be available next week to support risk-based decisions on continued operation. This is a relatively quick look given the number of welds. LANL is developing a long-range plan for more detailed certified inspections of representative welds in all nuclear facilities.

**Plutonium Facility (TA-55):** NNSA has rejected a backward-looking Unreviewed Safety Question Determination involving cleanup of the room contaminated with Pu-238 last August. NNSA identified weaknesses in the 7-year-old final safety analysis report and could not verify that controls are adequate to address hazards in the room. It's unclear right now what the implications of this are on the cleanup effort and on addressing the large inventory of Pu-238 residues in the room.

TA-55 has clarified its strategy for resuming Pu-238 operations curtailed last fall because of concerns about residues stored in containers outside gloveboxes (site rep weekly 3/19/04). Residues are not to be removed and stored outside gloveboxes until after NNSA has approved a process hazard analysis and LANL has finalized associated hazard control plans and work instructions. Residues declared as waste may be removed from gloveboxes following existing waste handling procedures. Six operations are within scope: bench-scale aqueous scrap processing; fuel processing; pyrolysis & liquid residue processing; fueled clad decontamination; destructive testing and evaluation; and miscellaneous. Readiness for each will be verified by a management self-assessment (MSA). A validation walk-down with operator input, per the new integrated work control process, will be part of the MSA.

**Radiography Facility (TA-8-23):** Last week, NNSA formally suspended TA-8-23 operations with explosive and tritium items due to lightning protection deficiencies and confusion on the safety basis. TA-8-23 operates under a two-year-old Justification for Continued Operation (JCO). The safety basis confusion centers on whether the JCO and NNSA approval letter required the lightning protection system to be code compliant (NFPA 780). The lightning protection deficiencies were identified last July but have not been corrected. The facility had curtailed operations in March due to the lightning protection issues but had concluded that they were still within the safety basis. NNSA disagrees. LANL experts consider the system degraded but functional. The issues here (e.g., lack of clear operability criteria, delay in resolving known deficiencies) strongly parallel those identified in a Board letter of 8/19/03 for WETF. Institutionally, NNSA and LANL still need better criteria for operability, maintenance, and configuration management for these systems (site rep weeklies 3/5/04, 11/7/03).

**Management:** Ralph Erickson, the NNSA Los Alamos Site Office (LASO) Manager, was honored this week on the occasion of his retirement. Ed Wilmot has been assigned as the new LASO Manager.