

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 31, 2001

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending August 31, 2001

Plutonium Handling and Processing Facility (TA-55): In a January 22nd letter to DOE-AL, the Board expressed concerns on the identification of quality requirements for the TA-55 Fire Protection Yard Main Replacement Project (FPYMRP) and on the need to complete this project without further delay. The project is intended to replace the TA-55 leaking fire water loop and make other upgrades that improve system reliability. Procuring the polyethylene piping and components is on the critical path. In early August, the Board's staff questioned the purchase order quality provisions. Following discussions with the staff this week, DOE and LANL agreed to revise and clarify both the purchase order and receipt inspection requirements to be more specific about the testing requirements and criteria, as well as test result traceability to material lot. DOE anticipates minimal impact on delivery. Next Friday, a DOE Energy Systems Acquisition Advisory Board (ESAAB) will review the project's preparations for start of construction (i.e., Critical Decision 3).

Radiochemistry Laboratory (TA-48): Last Friday, a TA-48 supervisor received Cm-244 alpha contamination on his shirt while performing an accountability inventory in the actinide research laboratory. The laboratory has a small actinide inventory stored in metal and glass cabinets in a controlled-access, radiological buffer area. The contamination was released from a torn zip-lock plastic bag containing a glass flask of Cm-244 solution with a glass stopper. The supervisor was wearing a lab coat, gloves, safety glasses, and booties. While the radiological consequences here were minimal (i.e., negative nasal smears, no airborne alarm, no skin contamination), it appears that a worker-safety review of this lab's material storage and handling practices would be worthwhile.

Chemistry and Metallurgy Research Building (CMR): On Tuesday, a maintenance worker skipped a hold point in a work procedure and removed 6 gages from service that are used to monitor differential pressure between the Wing 9 hot cells and the occupied space. An operator conducting daily rounds discovered the problem within an hour, but it was another 2 hours before the facility took appropriate actions, including terminating normal operations in Wing 9. Facility management has reported the event as a TSR violation and has stopped CMR upgrade work until a work package review is completed. The site rep believes that there are clear work control and training issues here, for both the operational and maintenance personnel. The facility is preparing a recovery plan.

Conduct of Operations: On March 15th, the DOE conduct of operations order (DOE O 5480.19) was added to the LANL contract. Implementation in key facilities is expected by the end of FY 02. The LANL Director has set an expectation that the quality of LANL operations match the quality of its science and technology. In July, LANL assigned responsibilities and identified the process requirements for verifying implementation. In mid-August, LANL submitted to DOE an implementation plan, identifying three essential components: (1) DOE approved documentation on requirement applicability and facility verification; (2) both institutional and facility actions to close gaps in implementation; and (3) a viable LANL self-assessment and continuous improvement process. During the next few weeks, DOE and LANL will be conducting joint training to assure starting this process with common expectations that are consistent with both the necessary formality of operations and the laboratory's fundamental research and development mission.