

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 14, 2013

MEMORANDUM FOR: S.A. Stokes, Acting Technical Director
FROM: R.T. Davis and R.K. Verhaagen
SUBJECT: Los Alamos Report for Week Ending June 14, 2013

Staff members M. Horr, T. Hunt, and J. Pasko were on site this week to review the conduct of operations in Technical Area-54, Area G. The staff team evaluated the implementation of conduct of operations elements prescribed in DOE Order 422.1, *Conduct of Operations*, and local LANL requirements, and focused on Sorting, Segregating, Size Reduction, and Repackaging activities.

Plutonium Facility – Criticality Safety: The LANL Deputy Director provided the field office with an action plan to improve conduct of operations and criticality safety this week at the Plutonium Facility. The action plan stems from recent infractions identified in a specific laboratory room by field office and DNFSB staff personnel. The plan includes the following actions: 1) pause of operations in the room (complete); 2) process walkdown of all glovebox operations and activities in this room (complete); 3) identify requirements for resuming operations (due 6/15/13); 4) issue memo to facility workers restating requirement for verbatim compliance to procedures (complete, discussed below); 5) evaluate extent of condition by performing process walkdowns for 13 other process operations at the Plutonium Facility (due 6/28/13); 6) review all assessments and evaluations of Plutonium Facility operations over last 12 months to ensure appropriate corrective actions have been identified (due 6/21/13); 7) develop a comprehensive operations improvement plan based on walkdowns and assessment review (due 7/5/13); 8) assess the effectiveness of the operations improvement plan (1st quarter FY14); and 9) perform a facility centered assessment of criticality safety at the Plutonium Facility (1st quarter FY14).

On Thursday, the Associate Director for Plutonium Science and Manufacturing issued a memo to workers on procedure adherence requirements stating that “two of the most critical elements of safe operations are that written technical procedures define the proper operational parameters and controls and that those procedures are followed as intended.” The memo reiterates that technical procedures (including reference and use every time) are to be followed as written, without exception, and that work should be paused if a procedure step is confusing or difficult to understand.

Weapons Engineering Tritium Facility (WETF): This week, WETF personnel entered a limiting condition of operation (LCO) for the oxygen monitoring system in the Tritium Waste Treatment System (TWTS). The LCO was entered after it was discovered that a pump associated with the oxygen monitoring system had been inadvertently secured while performing corrective maintenance on the TWTS. The pump was secured due to ambiguous language in an attachment to the integrated work document in use that directed the TWTS be shut down. During the critique, it was identified that the operators were unaware that shutting down the TWTS would secure this pump and require entry into the LCO condition. WETF management is pursuing corrective actions to clarify the work documents.

Chemistry and Metallurgical Research (CMR) Facility – Confinement Vessel Disposition (CVD): The field office conducted an ancillary review of the CMR Documented Safety Analysis and Technical Safety Requirements that generated comments related to the CVD project. Comments identified an inadequacy in the design of the safety significant sphere rotation brake system and incomplete performance criteria to ensure the confinement safety function of the CVD workstation/glovebox is satisfied. As a result the Operational Readiness Review scheduled for June 17, 2013, has been delayed until these issues can be resolved.