

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 18, 2009

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending December 18, 2009

Emergency Management: This week, the laboratory intended to begin a series of orientation tours of the Superblock nuclear facilities for the Alameda County Fire Department (ACFD). Under the terms of their contract with the laboratory, ACFD is required to complete annual tours of the nuclear facilities. Subsequent to questions on the conduct of these tours, the laboratory decided to improve their formality and standardize content. Responsibility for conduct of the tours has been assigned to each of the Facility Safety Officers. Content for the tours is under development using an existing orientation checklist for the Plutonium Facility and will be developed with input from ACFD personnel and the laboratory fire protection engineer. Two of the key areas of emphasis will likely be coordination with appropriate facility personnel and glovebox fire fighting techniques—coordination with ACFD was identified as a weakness in the past three annual exercises and glovebox fire fighting is not currently reviewed as part of other training efforts at the laboratory. The Superblock tours were scheduled for completion in February; however, conduct of the tours using an on-call shift has hampered timely execution as a result of emergency deployments. This occurred during Tuesday's scheduled tour. Thursday's scheduled tour was canceled for other reasons. A schedule for the Radioactive and Hazardous Waste Management nuclear facilities has not yet been developed.

Tritium Facility: This week, the report was issued from the laboratory readiness assessment (LRA) for the grinder system (see weekly dated October 23, 2009). Overall, the LRA team determined that four of the fifteen core requirements were not met. Three pre-start issues were identified pertaining to inadequate conduct of operations, radiological control practices, and design weaknesses. Each of these pre-start issues represents a roll-up of numerous individual deficient conditions. For example, the finding against the conduct of operations program was derived from seven summary issues involving daily maintenance checks, operator aid content and usage, pre-operational checks, equipment labeling, procedural adequacy and adherence, and missing components. Four post-start issues were identified related to noise hazards, operator aids, inventory, and improper closure of a prior issue.

Two additional points of note are presented in the Lessons Learned/Recommendations section of the LRA report. First, the team noted that the overall execution of the grinder operations was inconsistent with expectations of a nuclear operation. The team suggested revision of processes to allow for adequate walk-through, rehearsal, and refinement of operations. Second, the team observed the need to ensure the participation of all relevant parties during the development of the hands-on process for an activity. Without this integration, the team questioned how the Operational Safety Plan (i.e., work control document) assured safe practices. Development and execution of corrective actions is underway. Line management is expected to require another operational demonstration as part of corrective action closure.