

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 1, 2013

**MEMORANDUM FOR:** Steven Stokes, Acting Technical Director  
**FROM:** Jonathan Plaue, DNFSB Site Representative  
**SUBJECT:** LLNL Activity Report for Week Ending February 1, 2013

**Livermore Site Office (LSO):** Last month, LSO personnel issued the report covering the extent of condition review of credited safety systems. The review represents one of the actions taken in response to the Board's letter dated December 13, 2011. In this review, LSO examined the adequacy of flow-down from the hazards analysis to the safety function, functional requirements and performance criteria for each system. Overall, LSO identified 13 comments on the Tritium Facility and 14 comments on the Plutonium Facility, but judged that none of these comments required immediate actions.

LSO grouped the comments into categories related to natural phenomena events, clarifications, inconsistencies, insufficient basis information, and outdated information. As an example of a natural phenomenon concern, LSO identified that the Tritium Facility stacks and security poles in the yard are not credited features even though events in the hazards analysis indicate that these structures could adversely impact Safety Class equipment for the Plutonium Facility during a seismic event. The stacks and poles were designed to withstand a 0.57 g earthquake; however, no formal surveillances exist to ensure this capacity is maintained.

**Startup and Restart:** On January 28, 2013, LSO approved the startup notification report (SNR) for the second quarter of fiscal year 2013. LSO noted that they await further information on a new activity involving plutonium-238. Otherwise, the approved SNR indicates contractor directed readiness assessments planned as follows:

- Initial start of the Tritium Science Station West Wing (March)
- Restart of the General Purpose Tritium Glovebox (September)
- Initial start of the Centralized Waste Processing Line (September)
- Restart of the Tritium Grinder System (November)

**Quality Assurance:** On January 31, 2013, the laboratory contractor issued a causal analysis for the deficiencies associated with the software quality assurance (SQA) program (see weekly report dated January 25, 2013). The contractor developed the causal analysis as part of reporting a noncompliance under the Price-Anderson Amendments Act. The contractor identified two root causes: (1) a lack of formality in the interactions between LLNL and LSO resulted in inadequate or missing records indicating that the Institutional SQA Program (ISQAP) was reviewed against all elements of Department of Energy Order 414.1D, *Quality Assurance*, and (2) the ISQAP documentation lacks sufficient detail to accurately convey what is expected of LLNL organizations for implementation. The root cause for a separate, but related, noncompliance associated with SQA indicated that the ISQAP was written at a high level and focuses on the "what" as opposed to the "how". No actions are currently planned to examine whether the implications of these root causes extends beyond SQA to other functional areas.