

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 2, 2011

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending September 2, 2011

The Site Representative was out of the office on Thursday and Friday.

Livermore Site Office (LSO): On August 24, 2011, LSO transmitted a periodic issues report to the laboratory contractor. The report contained two weaknesses pertaining to quality assurance in the Weapons and Complex Integration (WCI) directorate: (1) lack of implementation of requirements in the WCI quality assurance plan—principally, criteria were not developed to identify the need for activity level quality assurance plans and a comprehensive assessment of quality assurance had not been performed in a 3 year period, and (2) lack of integration between the WCI Quality Assurance Plan and Department of Energy Standard 3016, *Hazard Analysis Reports for Nuclear Explosive Operations*. LSO also identified a weakness regarding missed annual inspections for the lockout and tagout procedure used in the Superblock—the last annual inspection record was dated May 3, 2007.

Waste Storage Facilities (WSF): In a letter dated August 23, 2011, LSO approved the contractor's request for a one-time exception to the material-at-risk limit in the approved transportation safety document. The contractor requested the exception in order to relocate a single drum from the WSF to the Plutonium Facility for future remediation. The drum was discovered as part of the extent of condition review performed in response to the potential inadequacy in the safety analysis related to inconsistent dose conversion factors (see weekly report dated August 12, 2011). After utilizing the correct dose conversion factors, the contractor determined the drum, which contained americium oxide sources, contained about 116 plutonium-239 equivalent curies (PE-Ci). This value exceeded both the 50 PE-Ci limit in the WSF safety basis and the 108 PE-Ci limit for a single shipment in the transportation safety basis. The drum was successfully moved late last week. Subsequent to relocating the drum, the contractor issued the evaluation of safety of the situation on August 29, 2011. The evaluation stated that the unreviewed safety question was determined to be positive and that no further compensatory actions were necessary following relocation of the drum.

Plutonium Facility: LSO verbally notified the contractor that additional information on the scope of work and hazards analysis was necessary to support federal review of the safety basis amendment associated with a new programmatic experiment (see weekly report dated August 19, 2011). The contractor is preparing additional documentation.