

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 6, 2012

**MEMORANDUM FOR:** T. J. Dwyer, Technical Director  
**FROM:** B.P. Broderick and R.T. Davis  
**SUBJECT:** Los Alamos Report for Week Ending July 6, 2012

**Weapons Engineering Tritium Facility (WETF):** On Tuesday, WETF management identified that the semi-annual Oxygen Monitoring System (OMS) surveillances are performed after replacement and calibration of the oxygen sensors, which may not be consistent with the Technical Safety Requirements (TSRs). Performance of the surveillance after a new sensor is calibrated does not provide information on the performance of the previous sensor. The TSR surveillance identifies that operators should “VERIFY” OMS performance, which does not allow operator manipulation. Upon discovery, WETF management conservatively concluded that this issue represented a TSR violation and plans to critique the issue on Monday.

**Technical Area-35 (TA-35):** Last week, LANL submitted a corrective action plan to the site office for recovery from recent criticality safety issues identified at TA-35, including the discovery of three unaccounted for fuel rods in May and identification of fuel rods with active lengths that may exceed the length identified in the criticality safety evaluation in June. The plan includes compensatory actions and a path forward to ensure proper accounting and disposition of the fuel rods; however, it did not incorporate actions required to respond to a recent site office memo on the TA-35 criticality safety issues. The LASO memo requests that LANL evaluate the following three options: 1) deinventory sufficient fuel rods to preclude criticality concerns; 2) upgrade the hazard categorization of certain facilities in TA-35 to hazard category 2; or 3) improve the “nature of the process” arguments that allow these TA-35 facilities to be radiological (i.e. less than hazard category 3) facilities per DOE Standard 1027. The site office did not take action on the LANL corrective action plan and instead requested that LANL incorporate the actions and path forward into a recovery plan that adequately addresses all LASO requested actions. Programmatic operations associated with these fuel rods remain suspended pending LANL development and site office approval of a recovery plan.

**Nuclear Safety:** This week, the Laboratory Director provided a final response to a September 2011 NNSA site office letter requesting action to improve nuclear safety and operations. In this response, the Director provides the results of laboratory causal analysis of four key identified problem areas: • Why are Technical Safety Requirement (TSR) violations occurring? • Why are criticality safety infractions occurring? • Why are issues and deficient conditions, which should be discovered by LANS personnel, being found by NNSA Facility Representatives and other outside groups? • Why do personnel have difficulty executing procedures and work packages? The LANL analysis rolls up identified deficiencies and causal factors into five judgments of need related to: 1) Strengthening management emphasis on Nuclear Safety Culture, self-discovery, reporting free from fear of retaliation, and continuous improvement; 2) Improving clarity and understanding of roles, responsibilities, authority, and accountability; 3) Enhancing issues management with corrective actions directed at causes rather than symptoms to support continuous improvement; 4) Elevating management attention on the training and qualification program; and 5) Improving effectiveness of technical procedures as tools for workers. In the response, the Director also announced the establishment of a Senior Executive Committee on Nuclear Safety that will be chaired by the Associate Director for Nuclear and High Hazard Operations. This committee will be responsible for addressing the five identified judgments of need and directing future improvements to nuclear safety and operations.