

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 14, 2012

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending December 14, 2012

Conduct of Operations: This week, a laboratory contractor Joint Functional Area Manager/Line Management Assessment team out-briefed the results of their review of shift routines and operating practices at the nuclear facilities. The team reviewed documents, observed work, and conducted interviews during the course of four weeks. The review primarily focused on facility operations versus programmatic work. Overall, the team determined that the requirements associated with Department of Energy Order 422.1, *Conduct of Operations*, for shift routines and operating practices were adequately implemented. The team noted two areas for improvement concerning the forms and procedures used for daily inspections in the Tritium Facility and Hardened Engineering Test Building. The team also noted strengths concerning exceptional communications and awareness of status amongst the facility operations staff. Livermore Site Office (LSO) personnel shadowed this review and found the conduct to be acceptable.

Of particular interest, the assessment team commended the use of information technology to facilitate real-time monitoring of facility equipment status from off-site locations. Specifically, facility operations staff implemented tablet computers to provide video feeds of equipment status panels in order to assist in the identification of and response to alarms. This capability helps compensate for the recent elimination of off-shift health and safety technicians (see weekly report dated September 7, 2012). Facility personnel are also pursuing the use of tablet computers at the job location to facilitate safe and effective work with a live connection to work control documentation and training records.

Management: The Weapons and Complex Integration (WCI) directorate recently decided to pursue implementation of *The Shingo Prize for Operational Excellence*TM. The Shingo model emphasizes an organizational culture based on categorical principles organized into four dimensions of cultural enablers, continuous process improvement, enterprise alignment, and results. Selected managers and staff from WCI and the rest of the institution recently completed training on the Shingo model and plan to conduct internal assessments using this method in the near-term. WCI management believes that the Shingo model offers a comprehensive approach to organizational culture that envelopes the various safety and security culture initiatives employed elsewhere in the complex.

In the absence of direction from National Nuclear Security Administration Headquarters, WCI is considering using its Shingo effort as a central element of their response to Deliverable 2-5 of the Department of Energy's Implementation Plan to Board Recommendation 2011-1. This deliverable, which is due to be completed by March 2013, requires a self-assessment of the Safety Conscious Work Environment at each site. LSO personnel recently participated in Shingo training and initiated discussions with Headquarters to discuss the potential application of Shingo.