

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 11, 2011

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending February 11, 2011

Training: In a memorandum dated January 28, 2011, the Laboratory transmitted to the Livermore Site Office (LSO) the results of an extent of condition review on the state of the Systematic Approach to Training (SAT) in the nuclear facilities. The Laboratory completed this analysis as part of its implementation of Department of Energy (DOE) Order 426.2, *Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities* (see weekly report dated October 29, 2010). DOE Order 426.2 and its predecessor, Order 5480.20A, require contractors to utilize SAT in their training programs. The Laboratory utilized the DOE Handbook 1078 ADDIE steps (Analysis, Design, Development, Implementation and Evaluation) as the basis of the SAT gap analysis at the institutional, organizational, and activity levels. The analysis revealed the following:

- At the institutional level, SAT was implemented
- Radioactive and Hazardous Waste Management (RHWM) generally implemented SAT at both the organizational and activity level, although the need for improvements was noted in several areas
- Superblock had not generally implemented SAT at the organizational or activity levels

Overall, the Laboratory concluded that SAT was implemented, stated that action plans were in place to close gaps in SAT within RHWM and Superblock, and affirmed the commitment for continuous improvement in the training program.

Transuranic Waste Handling: On February 8, 2011, representatives from the Nuclear Materials Technology Program (NMTP) and LSO met with federal and contractor personnel from the Waste Isolation Pilot Plant (WIPP) to discuss implementation of the DOE Office of Environmental Management's *Contact-Handled Transuranic Waste Packaging Instructions* (Packaging Instructions). NMTP presented their concept to minimize human contact with waste streams potentially containing sharp items through the use of a shredder (see weekly report dated January 14, 2011). WIPP personnel raised a number of concerns with this concept, but suggested an alternative where potential sharps would be segregated and examined with radiography in lieu of the additional human contact required to unwrap sharps for videography. LSO and NMTP plan to develop a formal deviation request to the Packaging Instructions in order to utilize the segregation approach. NMTP will also likely need to revise waste handling procedures, which currently do not require sharps to be segregated at the time of generation.

The Site Representative notes that compliance with the Packaging Instructions will require NMTP workers to double handle all waste parcels. Lessons learned from around the complex, including last summer's contaminated puncture wound of a waste handling worker at the Savannah River Site, indicate the need to minimize human contact with transuranic waste. Certain technologies (i.e., radiography) are available to reduce the amount of waste in need of additional handling, but DOE has chosen not to implement them at smaller sites such as LLNL.