

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 29, 2010

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending October 29, 2010

Plutonium Facility: This week, fissile material handlers successfully completed replacement of the high dose rate housekeeping HEPA filter (see weekly report dated October 15, 2010). The handlers modified the filter support stand to permit proper alignment and connection of the wooden filter box to the duct work. Last week, handlers completed replacement of a different housekeeping HEPA filter using an adapted version of the work instructions developed for the first replacement. The second replacement was performed without incident.

Training: On September 13, 2010, the Laboratory submitted an implementation plan for Department of Energy Order 426.2, *Personnel Selection, Training, Qualification, and Certification Requirements for Department of Energy Nuclear Facilities*. The plan targeted overall implementation of the Order by September 9, 2011. The plan also defined successful implementation as the revision of the necessary documentation, as well as performance and demonstration of the referenced changes in those documents. The approach and schedule for implementation included six actions:

1. Submit Training Implementation Matrices (TIMS) for the Superblock and Radioactive and Hazardous Waste Management facilities by October 12, 2010,
2. Implement new manager development program by January 31, 2011,
3. Implement a revision to the Laboratory's Environment, Safety and Health (ES&H) Manual Document 40.1, *LLNL Training Program Manual*, by June 15, 2011,
4. Implement a revised ES&H Manual Document 50.1, *Personnel Selection, Qualification and Certification Requirements for Nuclear Facilities*, by September 9, 2011,
5. Implement actions necessary to close the requirement gaps identified in each of the facility TIMS by April 30, 2011, and
6. Evaluate the extent of condition of the systematic approach to training by January 31, 2011.

In a letter dated, October 27, 2010, the Livermore Site Office (LSO) informed the Laboratory that the required general deliverable for full implementation, as discussed above, was accepted. LSO also noted that the actions to revise the ES&H manual were internal activities to the contractor and were not required by the Order. LSO is currently reviewing the TIMS.

Tritium Facility: This week, handlers began installation of a temporary confinement tent around the x-ray photoelectron spectroscopy (XPS) equipment. The XPS is used to examine the surface chemistry of small actinide samples (< 5 g) placed in a vacuum chamber. During the Facility Acceptance Process review, personnel identified that the XPS equipment is placed in a location without HEPA filtration. This concern was previously raised during the initial design review. Management elected to construct a temporary HEPA filtered tent to limit the contamination impact of any potential release and to prevent direct release into the environment. Facility personnel are developing plans to add permanent filtration for the room. The approved safety basis permits hazard category 2 threshold limits of actinides (e.g., 450 g of plutonium-239) in each increment of the facility.