

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 20, 2007

MEMORANDUM FOR: J. K. Fortenberry, Technical Director
FROM: M. J. Merritt, DNFSB Site Representative
SUBJECT: Lawrence Livermore National Laboratory (LLNL)
Report for Week Ending July 20, 2007

Plutonium Facility Procedures: Recently, LLNL has made progress in developing improved procedures to support Plutonium Facility operations. A new Facility Safety Plan (FSP) was completed and distributed this month. The FSP was updated as part of the Safety Basis Implementation Plan (see weekly report dated June 2, 2006) that is being utilized to transition Plutonium Facility controls from the old safety analysis report to the new documented safety analysis (DSA) and Technical Safety Requirements (TSRs). Changes to the FSP are intended to ensure flow down of some DSA and TSR requirements. Additional controls are identified in Operational Safety Plans (OSPs), surveillance requirements, and other procedures. As part of implementing the new FSP, personnel with unescorted access to the facility (including operators, handlers, and engineers) are required to complete training on the new FSP. Although some minor errors have been identified in the FSP and training, the implementation of the new FSP is progressing in a satisfactory manner.

In addition to the FSP, a new procedure has been issued for the development and implementation of OSPs. OSPs are the primary procedure used to perform work in the facility and are used to implement specific controls for a workstation/glovebox. In the past, some change control mechanisms were defined in the individual OSPs. With the issuance of the new procedure, *OSP Development and Implementation Guide*, all OSPs are formally linked to the work control process and specific requirements for format, renewal, changes extensions, review, and feedback and improvement are clearly defined. As individual OSPs are created or revised, a continuing challenge for LLNL will be to appropriately balance the controls specified in the FSP and OSPs, while avoiding unnecessary duplication. There are situations where specific controls should be restated in the OSP. The need to restate requirements in the OSP (that are also generally defined in the FSP) is conservative and prudent based on the typical differences in the use and required training for the two procedures. Fissile material handlers (FMHs) receive training on the FSP only when major changes or updates occur. Additionally, the FSP is lengthy as it contains most general building controls; hence the FSP is typically a reference document rather than an operational procedure. On the other hand, OSPs are specific to the workstation and are reviewed every six months and revised every year. The FMHs are trained every year on the revised OSP and refresher trained every six months. FMHs are also required to refer to the OSP periodically. Therefore, if FSP controls (e.g., special dosimetry or training requirements) are required for a specific OSP operation, reiteration of the requirements may be appropriate. In some cases, program personnel are removing controls from OSPs if they are contained in the FSP.

Radiography Facility Operations: Operations were performed in the Radiography Facility this week. The operation involved radiography of a plutonium pit. Operational performance was improved compared to recent observations (see weekly report dated July 13, 2007). Specific improvements were observed in the areas of work permit development, radiological controls, work permit implementation, and discipline of operations. Much of the improvement was a result of increased management attention based on previous feedback from the Site Representative.