

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 10, 2012

MEMORANDUM FOR: Timothy Dwyer, Technical Director
FROM: Jonathan Plaue, DNFSB Site Representative
SUBJECT: LLNL Activity Report for Week Ending August 10, 2012

Plutonium Facility: This week, program personnel successfully processed the first fuel plates from the Zero Power Physics Reactor using the hydride/nitride/oxide process. Additional plates will be processed during the next several weeks.

Safety Basis: Last month, the laboratory contractor issued a revision to procedure AB-007, *Control Item Selection Procedure*. This procedure provides direction in the selection of structures, systems, and components (SSCs) and specific administrative controls for safety class and safety significant functions. The revision clarified the definitions of several terms in response to Livermore Site Office (LSO) observations (see weekly report dated November 4, 2011). The revised AB-007 provides the following definitions:

Defense in Depth Equipment Important to Safety (DID-EITS)—Per DOE Guide 424.1-1B “other systems that perform an important defense in depth safety function” DID-EITS is a class of SSCs not credited in the DSA, but judged to merit additional attention in the USQ process per DOE Guide 424.1-1B.

Equipment Important to Safety—The set of SSCs comprised of safety class, safety significant, and DID-EITS.

Programmatic TSR [Technical Safety Requirements] Key Elements—Bulleted items listed under a programmatic TSR that specify broad outlines of the programmatic commitment and serve as indicators or areas sensitive to judgment of programmatic TSR violations. Identification of key elements is not formally part of the control item selection process.

The Site Representative notes that these concepts are not fully defined in currently approved DOE Directives; however, the terms have recently emerged in draft revisions.

Nuclear Materials Management: On Wednesday, contractor personnel provided a status briefing to LSO on the implementation of Department of Energy Manual 441.1-1, *Nuclear Material Packaging Manual*. Highlights from the briefing included:

- Approximately 400 of the existing 600 items in scope of the Manual are expected to be declared and disposed of as transuranic waste. No time frame has been identified for this disposition effort and these containers are all identified for repackaging in the interim.
- Repackaging efforts during fiscal year 2013 will focus on high risk items, which are mostly electrorefining salts containing significant americium-241 content. These items will be over-packed into drums that do not meet the Manual requirements, but are more robust than their existing containers. Most of these items are expected to be designated as transuranic waste.
- The first containers that meet the Manual requirements (i.e., SAVY containers) are expected to arrive at LLNL by the end of September 2012. The contractor has not established a date when existing packaging (e.g., lard cans, egg cans, juice cans, etc.) will no longer be approved for use as outer containers.