

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 22, 2005

**TO:** K. Fortenberry, Technical Director  
**FROM:** D. Grover, Hanford Site Representative  
**SUBJ:** Activity Report for the Week Ending April 22, 2005

Messrs. March, Roarty, Yeniscavich, and Zull of the Board's Staff and outside expert Mr. Boyd were onsite reviewing fire protection, criticality, and deactivation.

Plutonium Finishing Plant: The Hanford Plutonium Finishing Plant is currently engaged in Deactivation and Decommissioning operations where the removal of plutonium residues is governed by criticality safety limits and controls. The staffing for this activity has been recently upgraded by the assignment of four criticality specialists to provide on-the-floor support to operations personnel. The staff interviewed two of the four experienced criticality specialists, previously engaged as part of the Fluor Hanford central criticality safety group. They are expected to enhance the integration of criticality safety and facility operations.

K Basin Closure Project: The project identified the level of startup for the Hose-In-Hose Transfer Line (HIHTL) as a contractor Readiness Assessment (RA). This raised concerns as the project involves the installation of safety significant equipment and new Technical Safety Requirements (TSRs), including a Limiting Condition of Operation. The Fluor Hanford (FH) procedures for safety basis implementation and startup readiness permit the use of an implementation validation review (IVR) for the safety basis changes directly related to a startup activity. If the IVR is properly performed, the procedure then allows what would normally be an ORR for a startup activity to be replaced by a RA. This practice appears to be implied as an alternative in a February 2003 letter from DOE Richland to FH. At that time, DOE had stated that the intent was to allow revised controls from safety basis updates (e.g., annual updates) to be evaluated by an IVR process separately from a coincident startup activity. In the HIHTL case, DOE has countermanded the contractor and directed that the HIHTL startup be an ORR. However, it is not known at this time if the IVR rationale allowing the downgrading of an ORR has been applied to other startup activities. The site rep will continue to follow the extent and resolution of this situation.

Waste Encapsulation and Storage Facility (WESF): Staff members Grover, Yeniscavich, and Zull reviewed cesium and strontium capsule integrity and storage at WESF. The staff determined that the WESF storage conditions are adequate. The surveillance of capsule integrity has been performed annually for all cesium capsules for several years. The WESF storage and surveillance requirements stem from the failure of a capsule at a commercial irradiator. The lack of any observed failures during this surveillance may provide a basis to reduce this surveillance frequency. However, the staff questioned the lack of a statistical sampling of the strontium and overpacked cesium capsules to evaluate the potential for storage degradation. The site is considering the staff's comments and this issue will be discussed during a future staff review.

Cc: Board Members