

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 31, 2007

**TO:** K. Fortenberry, Technical Director  
**FROM:** R. Quirk and W. Linzau, Hanford Site Representatives  
**SUBJECT:** Activity Report for the Week Ending August 31, 2007

The Board's staff member J. Troan was on-site reviewing various projects.

Tank Farms: The DOE Type A investigation team essentially completed the data collection phase of their investigation of the spill from tank S-102 (see Hanford Activity Report 7/27/07). The analysis phase will start next week. Although the tank farm contractor has three significant investigations underway, including one that involves other site prime contractors, the Type A team has maintained a high degree of independence from the other investigations.

The tank farm contractor issued their report on the emergency management aspects of the spill. The report identified 13 specific failures, including a failure to notify other contractors of the high radiation area and a failure to perform an industrial hygiene survey of the tank farm area until five hours after the spill was discovered (13 hours after the spill occurred). Ten Problem Evaluation Reports (PERs) were generated, including one that will require the tank farm contractor to meet with the site emergency management contractor to ensure site-wide emergency management lessons-learned are addressed. Another PER will require a review of existing technologies that could provide a more rapid detection of this type of event. The corrective actions for all of these PERs will require acceptance by the contractor's Executive Safety Review Board.

An electrician was contaminated, primarily on his right hand (25,000 dpm beta/gamma), while replacing electrical power strips in a radiological buffer area (RBA) in the 222-S Laboratory. An electrical cord plugged into a power strip behind a desk was determined to be the source of the contamination. During the critique it was determined that only routinely accessible areas were surveyed during the periodic surveys of the RBA, and the area behind the desk was not considered to be routinely accessible. The fact that only routinely accessible areas of an RBA were surveyed was not known to the workers performing this minor maintenance work.

Project Hanford Management Contract: The contractor held a safety stand-down on Monday after senior management concluded that a number of recent events and injuries could be precursors to a more serious event. The stand-down included discussions related to ten recent events and was followed by walkdowns of the various facilities. Approximately 1,600 suggestions on actions to improve safety were identified during small group meetings and walkdowns.

Physical Sciences Facility (PSF): Construction of the PSF just south of the 300 Area has commenced. The PSF has five buildings that are classified as less than hazard category (HC)-3. An existing safety-related software system will be used to control inventories of radiological material in each of the facilities less than the HC-3 threshold quantity. These buildings can be maintained as less than HC-3 because four buildings in the 300 Area will continue to operate, including Buildings 325 and 318 (Radiological Processing Laboratory and Radiological Calibration Facility).