

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 24, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending June 24, 2005

F Area: The Site Reps and contractor personnel discussed the potential spread of contamination in a uranium facility undergoing decommissioning (Site Rep Weekly 6/17/05). Due to airflow patterns at the boundaries of airborne radioactivity areas (ARA), contamination could spread into radiological buffer areas. During a walkdown of the facility, the Site Reps found that the ARA boundaries were now adequately controlled with closed doors and curtains.

Emergency Response: Based on drill observations and subsequent Site Rep inquiries, there appears to be a difference in expectations regarding the fire department's (FD) role when responding to a radiological release at the Solid Waste Management Facility (SWMF). Facility radiation control staff expected the FD responders to use dose rate meters and take contamination swipes around a simulated breached transuranic (TRU) waste drum, although the FD staff did not seem to be familiar with the instrument. However, according to the FD training chief, the FD does not take dose rate measurements or perform swipes, but relies on radiation control personnel.

Solid Waste Management Facility: A legacy TRU drum containing high total volatile organic compounds in the headspace was purged for nine hours with nitrogen per procedure, but was not handled as a high hydrogen drum although other samples had found hydrogen up to 3.9% and the concentration after purging was more than 25% of the lower flammability limit. By the time this noncompliance was identified, additional drums had been stacked on the high hydrogen drum.

Electrical Work Stoppage: As a result of recent events involving unexpected exposures to electrical energy, the contractor President ordered a site-wide work stoppage for work involving: electrical lockouts/tagouts, electrical deactivation and demolition, excavation work, and drilling into walls, ceilings, and floors. In addition, a special site committee has been established to evaluate the adequacy of the site's electrical processes, training, and work execution and accountability.

Independent Assessment: Following the recent conduct of operations events in H-Canyon and HB-Line, Frank McCoy will perform an independent corporate assessment during July. The assessment, similar to one performed at the Hanford tank farms, will focus on the identification and implementation of common causes and corrective actions, incident trends for the facilities during the past year, and implementation of safety management programs (e.g., conduct of operations, nuclear criticality safety, and work planning). A followup assessment will take place later this year.

Technical Safety Requirement Violation: After the failure of electrical switch gear within a F-Area facility, contractor personnel entered a limiting condition of operation (LCO). While in the LCO, movement of nuclear material occurred which violated a Technical Safety Requirement. Ultimately, confusion regarding the classification (i.e., exempt versus non-exempt sealed source quantities of U-235) of the item resulted in the movement while in the LCO. No procedures were used and postings providing work guidance contained conflicting information.