

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 8, 2015

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending May 8, 2015

242-A Evaporator. The evaporator received waste feed on Saturday, but high differential pressure on a de-entrainer pad caused actuation of a safety-significant interlock on vessel vacuum causing a dump back to tank AW-102 later that day. The most likely cause of the high differential pressure was foaming in the evaporator vessel, and the contractor performed troubleshooting on the anti-foam addition system and repaired the anti-foam feed pump. Feed was introduced into the vessel again on Tuesday evening. Differential pressures on the de-entrainer pads have been as expected and slurry to Tank AP-107 started on Wednesday evening. The site reps observed control room operations including both feed introductions and the maintenance job to repair the anti-foam pump. Evaporator operations are currently stable.

Plutonium Finishing Plant (PFP). RL approved revision 12 of the PFP DSA (see Activity Report 4/24/2015). The Board's staff is conducting a review of the approved approach for controlling hazards during final deactivation and demolition of the facility.

A site rep attended a critique for a near miss on the PFP duct level. An improperly controlled circular saw fell from a scaffold platform located at a height of approximately ten feet and struck a worker on his hard hat. The worker was not injured. The critique revealed that some workers assigned by the Mission Support Contractor to support Central Plateau Contractor work at PFP under RL work assignment requirements were not adhering to controls and procedures established by the Central Plateau Contractor to protect workers in the facility. Their failure to comply with facility procedures has resulted in six incidents over the previous weeks. These incidents included a puncture wound and another broken skin wound in contaminated areas of the facility. The contractors are implementing a number compensatory measures before the identified workers are allowed to resume work at the facility.

The contractor declared a TSR violation due to a failure in a key element of the fire protection administrative control due to the presence of combustible materials in their TRU waste staging and storage areas. The entry occurred when the Central Waste Complex (CWC), which receives TRU waste from PFP, determined that the rubber skid pads that are placed between pallets and solid waste boxes to prevent slipping are considered to be transient combustibles and do not fit the criteria for material that is in active use for TRU waste handling. Upon notification by the CWC, PFP personnel entered their TSR condition consistent with the CWC interpretation. They established compensatory controls until compliance with the TSR administrative control was restored. Compliance was restored within the time allowed per the TSR administrative control.

Safety Culture. The DOE Office of Enterprise Assessment provided briefings to ORP and Waste Treatment Plant contractor personnel on the findings from their recent assessment on the safety culture of those organizations. The conclusion was that conditions are improving.

Tank Farms. The site reps observed ongoing conduct of operations training. This training is in response to last year's conduct of operations problems at the tank farms (see Activity Report 2/20/2015).