

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 27, 2015

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending March 27, 2015

Canister Storage Building (CSB). The contractor declared a positive unreviewed safety question determination when they discovered that some components used to seal ports on the multi-canister overpacks (MCOs) were purchased using quality criteria for general service components instead of quality criteria for nuclear safety components. The MCOs are used to store spent fuel inside of the CSB. The contractor determined that the seals provide the appropriate confinement function and are tested as a matter of best management practice. However there is no safety basis requirement to test the seals. Failure to test the seals could result in an increase in accident probability and related consequences. The contractor is performing a root cause analysis and will identify corrective actions related to this event.

Tank Farms. The site rep observed the removal of two pieces of long length contaminated equipment from tanks. The contractor removed a sluicer from single-shell tank C-101 without incident. The plugged slurry distributor in double-shell tank AN-106 (see Activity Report 1/16/2015) was more difficult to remove as it became stuck in the riser. The workers were eventually able to dislodge it while remaining below the lift limit defined by engineering. The distributor came free with considerable noise resulting from friction between the nozzle and the riser wall. It is currently staged in the farm awaiting disposal. Contractor management approved the work package for the grouting and disposal of the unit. Due to the amount of waste hold-up, the grouting will be performed in the Tank Farms prior to shipment to the Environmental Restoration Disposal Facility.

The site rep attended a fact finding related to a vapor event near a tank farm. The fact finding revealed a number of coordination issues that could be resolved with improved on-scene communication and coordination. In particular, weak communications resulted in incomplete evacuation of the affected area. Currently, most communication in the tank farms is accomplished either by radio or mobile phone resulting in less than complete coverage of individuals in the vicinity of tank farm events. The site reps believe it would be beneficial to explore alternatives, such as public address systems or similar local warning systems, to improve communication coverage for localized events in and around the tank farms, but do not rise to a level requiring the use of site wide emergency warnings. Additionally, this event demonstrated the importance of developing an ability to more rapidly characterize potentially hazardous conditions to support event response and identification of related causes.

Central Plateau Contractor. Following a series of events, most notably at the Plutonium Finishing Plant and the Soil and Groundwater Remediation Project, the contractor held a company-wide safety pause to brief the workforce on these events and management's expectations for performance.

PUREX Plant. The ventilation system at PUREX was shut down until a failed stack sample probe was replaced. The facility's air permit requires operational samplers when the system is running. The ventilation system is not a credited nuclear safety system, but is listed in the DSA as a hazard control that provides reduction in the release of hazardous materials to the public.