

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 3, 2016

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending June 3, 2016

Members of the staff held a teleconference with ORP and tank farm contractor representatives to discuss the contractor's Waste Compatibility Assessment safety management program.

Canister Storage Building. The contractor identified a positive USQ when they discovered that the calculated leak rate between multi-canister overpack (MCO) sampling events for a single MCO exceeded the rate assumed for initial conditions in safety basis analyses. The contractor added inert gas to establish normal pressure in the MCO and sealed the MCO using normal methods. The subsequent leak test of the MCO was completed with satisfactory results. The contractor Plant Review Committee has approved compensatory measures for the affected MCO and the contractor is performing an evaluation of the safety of the situation.

222-S Laboratory. The site reps observed an emergency preparedness drill at the 222-S Laboratory. This was an Incident Command Post Limited drill with tabletop simulated field play. The scenario involved a TRU waste drum dropped from a forklift with subsequent spill of material and personnel contamination.

Last week, there was a controlled egress of personnel from the lab due to insufficient ventilation. The event occurred when the backup diesel fan failed shortly after it was started so that one of the three electric fans could be secured for maintenance. The two remaining electric fans did not provide enough building vacuum leading to halt of operations and the personnel egress. The contractor and ORP identified internal communication, procedural, and notification issues during this event. The facility is currently operating without a backup fan. A standing order provides additional instructions for response to loss of power.

Plutonium Finishing Plant. The contractor had two Radiological Work Permit (RWP) void events. The first occurred when workers moved a negative air machine without the required continuous radiological control technician coverage. The second occurred when contamination exceeded the RWP void limit during removal of 26 inch vacuum piping on the 234-5Z duct level. The contractor is reviewing the events to identify actions to prevent recurrence.

Waste Treatment Plant (WTP). The site reps accompanied the ORP Site Manager and senior contractor management on a tour of the Material Handling Facility laydown yard. The contractor also described actions they are taking in response to the Board's letter dated April 4, 2016 regarding material handling procedures and conditions at WTP facilities and laydown yards. The described actions are generally responsive to the Board's concerns.

Tank Farms. The site rep observed a meeting of the contractor Joint Test Working Group that was held to evaluate plans for a near full scale demonstration of vapor detection and sampling equipment for the tank farms. The information obtained from the demonstration will be used to design the future permanent deployment of vapor detection and sampling equipment. Separately, ORP described plans for making vapor sampling results available to the public over the internet.