

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 6, 2016

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox and D. Gutowski Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending May 6, 2016

Staff member D. Cleaves was on site providing site representative support.

**Tank Farms.** The contractor repeatedly entered the abnormal operating procedure to respond to reports of odors in and around the East Tank Farms. In one event, industrial hygiene monitoring on the job detected elevated ammonia. Breathing zone data from a personal sampling pump worn by a member of the impacted work crew is not available yet. In response to heightened worker concern, management has curtailed waste-disturbing and waste intrusive work inside the farms and is planning employee briefings next week.

The contractor is continuing its technology development efforts to address recommendations from the Tank Vapor Assessment Team (see Activity Report 2/13/2015). The site rep attended a briefing and demonstration for vapor detection equipment currently undergoing bench scale testing at PNNL. This equipment is planned for pilot deployment in the tank farms this summer.

The site rep observed special equipment being developed and tested to drain the plugged pump in AP-106 (see Activity Report 2/18/2016). The setup includes features intended to reduce worker radiation exposure during pump removal and is planned for wider use if successful.

Retrieval from Tank AY-102 is on hold until additional retrieval equipment is installed (see Activity Report 4/29/2016). Liquid levels in the annulus have remained stable other than a slow decrease attributed to absorption by the refractory.

**Plutonium Finishing Plant.** During the final check of documentation prior to shipping a component, a worker discovered an error in its non-destructive assay calculation. The error would not have been obvious without a thorough check of the calculation. The worker's questioning attitude and positive action prevented non-compliant shipment of the material, as well as a potential exceedance of the receiving facility licensed allowance for the material.

The contractor completed repair of the breathing air system (see activity report 4/22/2016) and resumed work in 242-Z.

**Waste Treatment Plant (WTP).** The contractor submitted a PDSA change package and other supporting documents intended to address the technical issue on hydrogen in piping and ancillary vessels (HPAV). ORP is evaluating the submittal.

A site rep walked down the Low Activity Waste Facility. He observed contractor rigging activity for installation of an offgas system heat exchanger. Worker performance was well controlled and professional. The site rep also noted that, in some cases, the contractor storage of material designated important to safety or waste acceptance is not compliant with DOE and project requirements. Additionally, in some cases protection of installed equipment may not be sufficient to prevent damage. The site rep provided his observations to ORP.