

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 4, 2013

TO: T. J. Dwyer, Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending January 4, 2013

Plutonium Finishing Plant (PFP). There was a contamination spread in PFP while removing highly contaminated portions of a HEPA filter attached to a glovebox. Workers in a high-contamination area/airborne radioactivity area (HCA/ARA) wearing appropriate personal protective equipment evacuated this area into a non-ARA room when a continuous air monitor (CAM) alarmed in the HCA/ARA work area. Another CAM alarmed in the non-ARA room although at a much lower setpoint than the units in the HCA/ARA due to spreading of the contamination on the workers personal protective equipment. Four of the workers present in the non-ARA room without respirators showed positive results on their initial nasal swabs. Three of these four were able to get clear swab counts following blowing their noses out. A total of ten potentially affected personnel will undergo bioassay to determine if any of them received a plutonium uptake.

Tank Farms. The site rep observed preparatory work for removal of a failed supernate pump from double-shell tank AN-106. This is the second replacement of an AN-106 supernate pump in less than a year (see Activity Reports 3/16/2012, 10/5/2012). Work on AN-106 was stopped on Wednesday due to an exhaustor failure which required evacuation of AN Farm. The evacuation went smoothly. The pre-job briefing on Thursday to resume this effort was strong. Workers successfully removed two jumpers and a pressure relief valve from the pump pit and staged them in a waste box. A small amount of water was present in one of the jumper assemblies, nicknamed "the octopus" for its three dangling flexible connections. That jumper was also more contaminated than expected. The workers demonstrated good communications and consultation with radiological control personnel while determining the appropriate course of action to address the water and contamination. They chose to perform additional wrapping of the assembly and absorbed the free liquid to help control contamination. Pump removal should be completed next week.

2012 Year in Review. Major accomplishments at the Hanford Site this year included:

- The Tank Farms Contractor completed waste retrieval from three single-shell tanks and completed bulk retrieval of waste from two additional single-shell tanks.
- The Sludge Treatment Project completed preliminary design, began construction of the modified annex structure, and processed and packaged knock-out-pot material for interim storage.
- The Central Plateau Contractor continued removing gloveboxes from the Plutonium Finishing Plant including a 10 ton, multistory unit. A total of 181 out of 238 gloveboxes have been removed since the start of deactivation and decommissioning work. Over half of the pencil tanks have been removed from the Plutonium Reclamation facility with the majority of them done this year.
- The River Corridor Contractor completed cleanup of F Reactor Area and placed N Reactor into interim safe storage.
- The Waste Treatment Plant construction organization turned over the fire detection and alarm system in the Building 87 switchgear facility to the startup organization. This is the first system turnover in several years.