

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 19, 2013

**TO:** S. A. Stokes, Acting Technical Director  
**FROM:** D. Gutowski and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending April 19, 2013

Board staff members R. Eul, C. March, and R. Oberreuter were on-site to review the installation of fire protection systems in the Low-Activity Waste Facility, Analytical Laboratory, Steam Plant Facility, and an Electrical Switchgear Building at the Waste Treatment Plant (WTP).

**Tank Farms.** The site rep and an Office of River Protection (ORP) facility representative (FR) performed a walkdown of two standby diesel generators (DGs), one for the 242-A Evaporator and the other for the 702-AZ ventilation system, which serves both the AY and AZ double-shell tank (DST) farms. Neither of these DGs are credited safety systems, but they provide power to ventilation exhaust and other key systems upon the loss of normal power. The FR determined that the 702-AZ DG had not been tested since 2010 and that the status of the DG is described as inactivated in the maintenance tracking system. The FR and site rep also learned that the battery used to start the DG has been removed. Personnel from ORP and the contractor are evaluating if not having the DG for the 702-AZ ventilation system is a non-conformance with safety basis requirements. A worker also reported that the DG for the 242-A Evaporator had not been tested under load for some time because of problems with the design-rated load bank, but recently the DG was tested using normal facility loads, which were significantly less than the design rating.

A worker injured their back in AW farm while attempting to loosen a connection to remove a jumper in a pit. The location where the injury occurred was posted as a high radiation area, contamination area, and airborne radioactivity area. The coordination between the emergency response personnel and the field workers resulted in a safe evacuation of the worker without any spread of contamination. Actual contamination levels in the work area were fairly low during this stage of the jumper removal.

**Waste Treatment Plant.** ORP completed a review of the quality of the assumptions and inputs for WTP calculations and identified six priority level-two findings. One key finding was that there were multiple examples where selection of design inputs did not comply with quality assurance requirements. Since the surveillance found multiple issues within a small subset of WTP calculations, ORP believes there is the potential for a priority level one finding indicating a systemic breakdown in the quality of calculation. ORP plans to request that the contractor evaluate the extent of this issue.

**Central Plateau Contractor.** Richland Operations Office completed a review of the contractor's maintenance program and identified a significant number of findings and observations. Half of the findings were for problems noted in the Solid Waste Operations Complex.

**Emergency Preparedness.** Personnel from the DOE Office of Health, Safety and Security were on-site to prepare for an upcoming review of the site's ability to respond to severe natural phenomena events. The reviewers were surprised that there were no hardened emergency response facilities on-site.