

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 29, 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 March 29, 2013

100K Area. The contractor downgraded the Cold Vacuum Drying Facility from a Hazard Category (HC)-2 to a less than HC-3 facility. This is the first facility where the HC has been downgraded since the 209-E Critical Mass Laboratory was prematurely downgraded (see Activity Report 10/11/2011). That event resulted in both the Richland Operations Office (RL) and the contractor developing procedures for downgrading the HC of a facility. The contractor completed a management assessment and an Independent Validation Review, and concluded that they met the requirements RL imposed for the downgrade. The site rep observed the 100K West Operation Manager perform a walkdown to ensure they did not repeat errors from 209-E. Subsequent to this, RL personnel performed a walkdown and concluded that the requirements in the Safety Evaluation Report for the downgrade had been met.

Tank Farms. ORP approved the contractor's Plan of Action (POA) for the Readiness Assessment (RA) to restart the 242-A Evaporator and implement its new safety basis (see Activity Report 1/11/2013). ORP still needs to develop their POA. This will be the first RA for the contractor since 2008, before DOE Order 425.1D was significantly modified. The contractor's POA proposes significant tailoring of the 14 Core Requirements in the order.

The site rep attended a Technical Review in Denver coordinated by the Tank Farms Contractor to evaluate gas release and retention mechanisms from deep sludge layers in high level waste tanks. The review concluded with a recommendation to begin short term actions to develop a new Justification for Continued Operations (see Activity Report 3/15/2013) and begin preliminary research experiments. The intent of these near term actions is to provide additional single shell tank retrieval time while longer term research initiatives are completed.

Baseline Needs Assessment (BNA). The Mission Support Contractor was planning to complete the BNA of the fire protection emergency response organization, but has proposed delaying this until the next fiscal year because of funding constraints caused by the sequester. DOE Order 420.1B requires an update of the BNA at least every three years. The BNA was last updated in August 2009, and RL is evaluating if they should direct the contractor to continue with the BNA this year or accept the delay proposed by the contractor.

Plutonium Finishing Plant (PFP). The contractor received a report from an external review group which recommends improvements in the design and preventive maintenance of the Plutonium Reclamation Facility (PRF) canyon crane. The report notes there was infrequent use of the crane from the time the crane was installed in 1964 until PRF operations stopped in 2004. However, since July 2009, the contractor has been using the crane much more frequently to size-reduce the canyon's pencil tanks. The crane, a critical piece of equipment for the demolition of the PFP complex, has been out of service more than half the time since 2009 because of a series of equipment failures. The report has suggestions for improving the reliability, including the use of a thermal imager to monitor key components such as the gear boxes, motors, electrical panels and cables as well as how to address the oil leaking from the trolley and bridge gear boxes.