

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 13, 2013

TO: S. A. Stokes, Technical Director
FROM: D. Gutowski and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending December 13, 2013

Board staff member M. Horr was on-site to familiarize himself with operations in the tank farms.

Plutonium Finishing Plant (PFP). The Richland Operations Office (RL) approved the annual update to the safety basis which includes the handling of up to ten gloveboxes with significant holdup. These high mass gloveboxes (HMGs) are not expected to meet acceptance criteria for disposal at the Waste Isolation Pilot Plant nor can they be repackaged at existing Hanford facilities. The contractor proposed that the HMGs be moved from PFP in Type A containers and stored in the Central Waste Complex until another facility is designed and built to process them. In the cover letter to the Safety Evaluation Report, RL requested additional information on the PFP slab-on-grade strategy and prohibited implementing HMG removal until the RL manager has been briefed and concurs with the contractor's "efforts to achieve treatment and disposal."

The site rep observed a worker performing routine backshift rounds and concluded that the worker was knowledgeable of the facility. The worker expressed concern that he has received mixed messages on what constitutes acceptable combustible loading near fire barrier doors. The site rep noted that the large tent used to size reduce a glovebox more than two years ago was still erected in a room and its HEPA filtered ventilation system was still operating. The tent, HEPA filters, and related equipment are unnecessary sources of contaminated combustible material.

Waste Treatment Plant. The contractor is developing plans to resume significant engineering, procurement, and construction activities for the High-Level Waste Facility. Key items to complete prior to resumption include resolution of technical issues, updating the design process, and aligning the design with the safety basis.

ORP completed a surveillance on Quantitative Risk Analysis (QRA) for Hydrogen in Piping and Ancillary Vessels (HPAV). They concluded that there is sufficient evidence that the contractor's QRA implementation process is adequate to support design analysis. They also closed a condition of approval from 2007 that required the contractor to develop a methodology to bound dynamic pipe loads from explosion pressure pulses.

Tank Farms. The site rep and staff discussed Recommendation 2012-2 implementation with ORP personnel. The discussion focused on the near term commitment to provide the Board with the test results from pilot deployment of real time flow monitoring instruments (see Activity Report 6/7/2013). The contractor completed their data collection and evaluation of the test instruments and provided ORP with their preferred choice of safety-significant device for monitoring flow.

242-A Evaporator. Contractor and ORP personnel met with the site rep to discuss their responses to questions raised by the site rep related to the new safety instrumented systems (see Activity Report 11/22/2013). The contractor has resolved some of the questions and will resolve others before facility restart. The contractor said open items are being tracked as part of facility readiness process. Some issues were deferred to ORP for a resolution path.