

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 7, 2012

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending September 7, 2012

Waste Treatment Plant (WTP): The Office of River Protection (ORP) sent a letter to the contractor rejecting their response to the Priority Level 1 findings and the concern about performance (see Activity Report 3/30/12). The findings are for a lack of a margin management program and questions on erosion/corrosion in the plant, and the concern is with contractor management performance. The letter states that the contractor's response is not adequate and ORP does not believe the root cause and causal analyses are tied to a robust set of corrective actions. ORP notes in the letter that they are committed to working with the contractor, but they state that if ORP and the contractor "are unable to gain alignment on mutually acceptable root cause analyses and corrective action plans within 30 days, DOE will direct BNI to suspend implementation of corrective actions, including RVP [Reliability Validation Process], until such time as corrective action plans are approved by DOE."

The Secretary of Energy and a team of experts were at Hanford this week to review the WTP design and evaluate the future operations in the black cells. The purposes of the review are to: evaluate the capability to detect vulnerabilities and failures of black cell equipment; assess the ability to repair those systems; and recommend changes as needed. The team is expected to make additional visits between now and the end of January 2013.

The contractor completed walkdowns of the electrical and fire protection systems in Building 87 (a non-safety switchgear building) to allow the turnover of this building from construction to the startup organization. ORP participants will document their observations in a surveillance report.

Tank Farms: The contractor is continuing their inspections of the annulus of double-shell tank AY-102 to determine if there are other potential leak locations (see Activity Report 8/17/12). The site rep observed workers inspecting a segment of the annulus, but there were no indications of a leak in this section or three other sections inspected this week.

The contractor's engineering manager continues to exert his influence to improve the quality of engineering products. One example is his increased expectations for the periodic system health reports that are prepared by system engineers. Previously, these reports were typically not critical, and as such, failed to clearly identify where improvements were needed. This week, the system engineers presented the status for four key systems, and clearly identified weaknesses and needed improvements.

The contractor continues to struggle with resolving ongoing issues with the safety-significant waste transfer system. ORP recently approved extensions for two justifications for continued operation (JCOs) associated with water hammer events and potential freezing in the waste transfer systems. These extensions will expire on September 30, 2012, but the contractor is preparing another request to extend them to mid-November to allow completing the waste retrieval from C-107. The C-107 retrieval system is the most susceptible system to freezing.

The contractor completed waste retrieval from single-shell tank (SST) C-104 and expects to complete the retrieval from SST C-109 in the next few weeks.