

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 10, 2011

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending June 10, 2011

Waste Treatment Plant: The contractor completed a report on their management assessment of the safety basis for the Low Activity Waste facility. The purpose of the assessment was to determine the adequacy of the documentation to support DSA development to meet DOE-STD-3009-94. The report grouped the findings into four overarching issues that need to be resolved to allow the project to build approvable and implementable DSAs and TSRs, including: the existing safety basis processes are not adequate or sufficient to produce a DSA because DOE-STD-3009 has not been fully implemented; the key information that demonstrates a systematic evaluation of all hazards is not always available because the project did not produce hazard analysis reports; and the controls were selected for systems and individual components, which resulted in a very large number of Limiting Conditions of Operation. The report clearly notes that the findings are applicable to the other WTP facilities, and corrective actions need to be project-wide.

Tank Farms: The contractor declared a Potential Inadequacy of the Safety Analysis (PISA) because compressed air used in waste transfer systems could be above the specified 180° F temperature design limit. The discovery was made more than two weeks before the PISA was declared and the site rep notes that this is consistent with the contractor's propensity to delay PISA declarations. ORP has directed the contractor to reduce the review time so that it is within the DOE guidance for formally declaring PISAs. Engineers identified that the problem also exists for hot flush water, but this was not included in the PISA.

A number of quality problems were identified with new and refurbished safety-significant pipe segments supplied by a small subcontractor. The Tank Farms contractor acknowledged there were weaknesses in the oversight of the subcontractor and performed a 100 percent review of all pipe components to verify the key attributes were met before they were released for installation in SY Farm. The site rep questioned if similar quality control problems could be found in the Mobile Arm Retrieval System, which was designed and provided by the same subcontractor.

Plutonium Finishing Plant (PFP): Last month, the Board's staff identified a number of instances where combustible material was not stored in accordance with postings. Subsequent reviews by the contractor's Fire Safety Office (FSO) identified similar deficiencies that had not been identified by the personnel responsible for implementing the Specific Administrative Control (SAC) for combustible material. This week, the facility representative reviewed the documentation of the SAC implementation from the last three months and identified a significant number of problems. The facility manager implemented compensatory measures and told the site rep that after they complete their causal analysis, they should be able to determine if the deficiencies are an indication of a programmatic breakdown of the SAC.

TRU Retrievals: A crane operator inadvertently damaged the lid of a box used to provide structural support for a retrieved waste box. The operator was retracting the boom on the crane when the hook penetrated the structural overpack. The hook did not disturb the inner box or the waste and response actions appeared to be consistent with lessons learned from events last year (see Activity Report 2/12/10).