

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 29, 2010

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending January 29, 2010

Plateau Remediation Contract: On Friday, the contractor declared readiness to proceed with the DOE Integrated Safety Management System (ISMS) Phase II review that is scheduled to start next week. This is the review team leader's first experience on an ISMS verification review, and the person designated as his advisor is no longer able to attend. The Office of River Protection offered support for the team leader in managing this large team (about 20 members), which will require significant coordination and leadership to be effective.

100 K Project: The contractor determined that two Potential Inadequacies in the Safety Analysis (PISAs) were unreviewed safety questions (USQs) and will require Richland Operations Office (RL) approval before closure but the existing compensatory actions are adequate. One of the USQs addressed lifting a fuel canister filled with knock-out pot sludge above the water and indicated that this event could result in a thermal excursion. The other USQ noted the non-conservative assumptions in the criticality safety evaluations used for sludge handling and storage in the K West Basin increased the probability of a criticality accident.

U-Plant D&D: The site reps conducted a walkdown of the 221-U Facility equipment galleries and canyon deck. The contractor has started loading old processing equipment on the canyon deck into cells where they will be grouted in place. Facility personnel have sprayed fixative on the entire canyon deck and equipment to lock down contamination and will spray under each large piece of equipment as it is loaded into the cells. Radiological controls appeared appropriate to the hazards and workers used adequate radiological practices. The galleries were largely unused with little to no combustible materials. The most significant remaining radiological hazard in the facility is the D-10 tank, which contains about 500 gallons of material. The material is mostly a hard-cake residual, but the tank has three to five gallons of free liquid. The project is developing plans to stabilize the material and dispose of the tank. The site reps noted minor weaknesses in the pre-job briefing (low worker participation) and the project is still working to strengthen conduct of operations.

Waste Treatment Plant (WTP): A small electrical fire occurred in cables below a temporary electrical cabinet at the Pretreatment facility. The fire occurred after normal work hours and was extinguished by the WTP Security personnel. There is no indication of fire or smoke damage to the concrete and steel structure under construction. The project is conducting an investigation into the cause. The site rep informed RL management of the event so they could apply lessons learned, once formulated, to their D&D facilities that also employ temporary electrical power distributions systems. The last fire involving temporary power occurred about a year ago.

Richland Operations Office: J. Allen completed his initial qualifications as a facility representative (FR). His primary assignment will be at the Environmental Restoration Disposal Facility, which allows another FR to focus on other higher-risk projects, such as remediation of 618-10 and 118-K-1 burial grounds.