

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 2, 2009

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending October 2, 2009

Board staff members J. Anderson, T. Hunt, C. Roscetti, and outside expert D. Boyd were on-site to observe conduct of operations at the Waste and Fuels Management Project.

Tank Farms: The Office of River Protection (ORP) sent letters to the contractor expressing concerns with their ability to perform work in a safe manner. The first letter addressed an assessment of the contractor's emergency preparedness (EP) program. The review team noted significant deficiencies in four of the 10 EP program elements, and the program at the tank farms was rated less than satisfactory. ORP determined that these problems in the EP program will require significant management attention. The Emergency Planning Hazards Assessment and Emergency Action Levels were noted to be deficient in the Type A Accident Investigation Report for the S-102 spill dated September 2007, but ORP has yet to approve the revisions.

The second letter addressed a significant number of problems with the quality of work instructions as well as with work execution. The cumulative significance of these work document and execution problems resulted in ORP defining this as a "concern" and will require an extent of condition review and a formal root cause analysis. The problems with the EP program as well as work procedures and conduct of operations have been previously noted by DOE (see Activity Reports 9/21/07, 1/4/08, 12/19/08, 1/16/09, 4/24/09, and 8/28/09).

224-U Facility D&D: Workers were exposed to airborne uranium oxide while drilling holes into a contaminated duct. The workers were drilling two-inch holes in the duct to allow the interior to be sprayed with fixative prior to dismantlement. After drilling the second hole, the worker felt air flow out of the hole and noted yellow dust in the air. The workers informed the radiological controls technicians (RCTs) who conducted surveys with negative results, so the crew continued to work in the area. After the work was completed, an RCT noted the filter paper on the air sampler was yellow, which indicated a potential for higher than anticipated airborne concentrations. Air samples counted for the work area indicated that levels were about 4.5 DAC/hrs. The workers were wearing lapel air samplers but not respiratory protection because they believed that it was unlikely to have significant quantities of uranium powder suspended. The site rep questioned why an engineering control such as a HEPA vacuum was not used, and the response provided during the critiques was that they preferred to fix contamination in the duct during D&D and not collect it in a vacuum. This is the third event involving radiological practices at U-Plant facilities in the last month (see Activity Reports 9/11/09 and 9/18/09).

Waste Encapsulation and Storage Facility (WESF): Operators made three unplanned entries into Limiting Conditions of Operation (LCOs) in less than a month due to maintenance activities. Workers are replacing the steam heating coils with electric units. During the removal of the large steam coils, they cut or damaged control air lines. The loss of control air caused disruption of the ventilation system for the storage pool area and entries into the LCO. It appears that poor work planning and communications contributed to these recurring events.

Management Changes: C. Spencer became the president of Tank Operations Contractor and N. Brosee replaced him as the president of the River Corridor Closure Contractor.