

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 14, 2006

TO: K. Fortenberry, Technical Director
FROM: R. Quirk and W. Linzau, Hanford Site Representatives
SUBJECT: Activity Report for the Week Ending July 14, 2006

Board staff member W. Yeniscavich was on site this week to observe a workshop on vapor space corrosion in double-shell tanks (DSTs).

Tank Farms: The Board's staff and site rep attended an expert panel workshop on corrosion in the vapor space of DSTs. A preliminary observation by the expert panel was that corrosion in the vapor space of waste tanks at both the Savannah River Site (SRS) and Hanford is limited and the tanks were in good shape even though limited pitting has occurred. The staff noted that there are instances of cracking of ancillary equipment that was exposed to the vapor space conditions, such as ventilation ducts at both Hanford and SRS and cooling coil hangers at SRS. The causes of these cracks as well as pits in the DST vapor space walls need to be better understood. The final expert panel recommendations should be issued in about two months.

The site rep observed recovery actions for exceeding void limits during the replacement of a hose-in-hose vacuum return line for retrieval of tank waste from C-204. The work had to be stopped because contamination on the vacuum retrieval skid equipment exceeded the radiological work permit void limit. The void limit was based on a survey of the area several days earlier that did not reflect the actual conditions during the hose replacement.

K Basin Closure (KBC): The site rep observed sludge retrieval activities in the K East basin and noted that the visibility in the basin was limited to approximately two feet due to excessive sludge suspended in the basin water. Progress in removing sludge during recent weeks has been slow although the KBC management indicated that they still expect to meet the October 31, 2006, Board commitment to remove bulk sludge. The site rep also questioned Richland Field Office (RL) personnel on how they will verify that criteria for this commitment have been met given the expected resettling of the sludge and potential residual basin water cloudiness.

Waste Treatment and Immobilization Plant (WTP): The site rep attended a meeting at which the WTP Facility Representatives presented the results of their inspections from the last quarter to Bechtel National, Inc. Although no formal findings were presented, eight concerns were noted of which four were welding related issues. The continuing problems seen in the welding program gives indication that the management initiatives implemented to address weaknesses (see Hanford Activity Report 4/14/06) have not been fully effective.

Plutonium Finishing Plant (PFP): The site rep observed removal of the remaining debris and potentially contaminated soil resulting from the demolishing of the 232-Z building (see Hanford Activity Report 6/9/06 and 6/30/06). The remaining slab has been sealed and preparations were being made to place six inches of gravel over it to protect the surface.