

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 13, 2006

TO: K. Fortenberry, Technical Director
FROM: R. Quirk and W. Linzau, Hanford Site Representatives
SUBJECT: Activity Report for the Week Ending January 13, 2006

Washington Closure Hanford (WCH): The site rep performed a walkdown of Building 327 and observed preparations for an upcoming activity involving the removal of two ion-exchange columns. Building 327, the post irradiation testing laboratory, was used to evaluate dimensional changes of irradiated fuel elements and completed its last mission in 1997. The ion-exchange columns are submerged in a small basin that was used to hold the fuel elements and the columns potentially have a build-up of hydrogen gas. The project has chosen to vent the columns remotely while they are still submerged in the basin as a means to minimize the risk from hydrogen ignition. Work crews have used a mock-up to practice the venting operation and participated in a "what if" meeting to discuss appropriate actions for unexpected events. The project is currently conducting an activity-based management review and next week will be conducting an ALARA review. The work is scheduled to commence during the week of January 23, 2006.

Waste Treatment and Immobilization Plant (WTP): A Department of Energy (DOE) independent review team from the Army Corps of Engineers was on-site this week to evaluate the WTP structural design. The subject for this week's review was overall seismic analysis, including soil-structure interaction, structural modeling, and in-structure response spectra development. Additional reviews on structural and seismic designs are scheduled through June of this year.

Hanford Contracts: The DOE announced the acquisition approach for the new Central Plateau contracts. The two existing contracts with Fluor Hanford, Inc. (FHI) and CH2M Hill Hanford Group (CHG) will be divided into three contracts. The current contracts for FHI and CHG expire at the end of September but will be extended until the new contracts are in place. The new approach does not affect the WTP contract nor the River Corridor Closure Project contract.

K Basins Closure (KBC): The KBC Joint Test Group approved the test procedure for qualifying the booster pump stations for the hose-in-hose transfer line. The two primary purposes of the test are to determine the operating parameters for simultaneous operation of all four booster pump stations and to evaluate the adequacy of modifications intended to reduce pump vibrations noted during earlier testing. The test is scheduled to start next month but significant design and construction work must be completed before the test begins.

A review of the piping and instrumentation drawings for the sludge treatment project was held this week and an expert from the Fluor Corporate Office was brought in as the facilitator. Participants in the review included representatives of British Nuclear Group America, FHI, and DOE. Every flowpath on every drawing was reviewed in detail and a significant number of minor deficiencies were noted.