

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 16, 1999

TO: G. W. Cunningham, Technical Director

FROM: R. Arcaro, & D. G. Ogg, Hanford Site Representatives

SUBJ: Activity Report for the Week Ending April 16, 1999

A. Plutonium Finishing Plant (PFP): Babcock and Wilcox Hanford Company (BWHC) will propose to Fluor Daniel Hanford that the baseline for stabilizing plutonium solutions be changed to the use of a magnesium hydroxide precipitation process rather than the vertical denitration calciner (VDC). The precipitation process had already been chosen for the stabilization of impure solutions. Since precipitation could also be used for the pure solutions, BWHC determined that the construction, installation, and operation of the VDC and the precipitation process was cost and time prohibitive.

B. Spent Nuclear Fuel Project (SNFP): On April 13, SNFP personnel briefed DOE-RL on resolution of the cask drop issue at KW-Basin. The preferred solution now appears to be a redesign of the Cask Loading System to mitigate the consequences of a cask drop. SNFP personnel have not yet provided specific cost and schedule impacts of this approach, but early estimates are that it could impact the start of fuel removal from the KW Basin by several months.

C. Tank 101-SY: The Tank Advisory Panel (TAP) met this week to evaluate the continued level rise in Tank 101-SY. The TAP concluded that they see no adverse risk associated with the current plan to transfer approximately 100,000 gallons of waste from 101-SY to 102-SY. This transfer will mitigate the immediate hazard presented by the waste rising to a level at which the double walls of the tank transition to the single barrier of the dome, thus losing double containment. The TAP cautioned that since this action will neither reduce the amount of retained gas, nor permanently prevent its future retention, further actions to achieve these goals must be expeditiously pursued.

D. Change in Hanford Site Boundary: The recent Secretarial announcement that the Wahluke Slope (north end of the Hanford Site) will be turned over to the U.S. Fish and Wildlife Service may affect some Hanford facility Safety Analysis Reports (SARs). Preliminary reviews of SARs for Tank Farms, K Basins and PFP, indicate that either public access to the Columbia River is already accounted for or the site boundary in another direction is the closest point of public access. However, review of the Cold Vacuum Drying Facility SAR indicates that public access to the Columbia River may result in unacceptable doses during an accident.

E. 233-S Authorization Basis: In preparation for the Readiness Assessment for D&D activities in the 233-S Process Hood, Mr. Ogg has reviewed the 233-S Authorization Basis (AB) document. The accident analysis portion of the AB document does not list risk evaluation guidelines, therefore, the acceptability of accident consequences cannot be properly determined. In addition, the accident analysis for a fire in the Process Hood uses 11g Pu as the source term - citing a 1990 reference. However, the 1990 reference actually lists the source term as 230g Pu.

cc: Board members