

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 2, 2003

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending May 2, 2003

Waste Treatment Plant (WTP): WTP conducted a design overview meeting for piping design, fabrication, and construction. During this meeting the path forward to change the fluid service category from Category M to normal service was discussed. The difference to the piping due to this change would be a reduction in the amount of radiography for systems outside black cells from 20 percent to 5 percent and a reduction in sensitive leak test requirements. Radiography requirements for piping within black cells would remain at 100 percent. This change would eliminate approximately 825 of the 32,500 circumferential butt weld inspections. It would also allow only visual inspections of socket welds and branch connection welds rather than dye penetrant or radiographic inspection where applicable for Category M fluid service. The staff will continue to follow this proposal and the potential impacts to system reliability. (I-C)

Spent Nuclear Fuel Project (SNFP): The Contractor Operational Readiness Review (ORR) for K-East Basin sludge retrieval commenced on April 23, 2003, and was suspended on April 27, 2003. The SNFP requested that the ORR team suspend its review primarily due to severe procedure problems which prevented demonstrations from occurring without significant delays while the procedures were revised. In addition, the ORR team noted problems with inadequate implementation of authorization basis requirements in the operating procedures, deficiencies in operation staff knowledge of some AB requirements, failure to correctly perform safety-related requirements during operations, and problems with the technical basis for the sludge water systems. The contractor has formed three teams to address the issues with procedures, the technical basis, and the improper declaration of readiness. These teams are expected to spend the next month resolving the issues with an anticipated date for the contractor ORR resumption being June 2, 2003. In their letter of December 27, 2002, DOE projected that the completion of the December 31, 2002, milestone for the start of sludge removal from the basin would occur by May 30, 2003. The continuing delays by SNFP in adequately preparing to safely and efficiently operate new equipment, make it likely that the removal of the first sludge container from the K-East Basin will be further delayed until August or September 2003. (III-A)

Tank Farms: Hydrogen levels peaked between 5200 and 5600 ppm during a spontaneous gas release event at AN-105. (III-A)

Plutonium Finishing Plant (PFP): The technical team developing recommendations for stabilizing high-chloride oxides decided that moisture measurements would be conducted at 1000° C versus their initial recommendation of 600° C. This addresses one of the staff's concerns and makes the proposal more consistent with that approved for Rocky Flats. However, if the sample fails to meet the 0.5 percent limit for weight loss on ignition, they would like to be able to interpret weight loss versus time data from thermogravimetric analysis. (III-A)

cc: Board Members