

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 4, 2000

**TO:** G. W. Cunningham, Technical Director

**FROM:** M. Sautman, Hanford Site Representative  
S. Stokes, Hanford Site Representative

**SUBJ:** Activity Report for the Week Ending February 4, 2000

A. Integrated Water Treatment System (IWTS): Filling and venting of the IWTS encountered some problems this week. After a facility representative raised questions about the lack of an engineering evaluation on the suitability of filtered water, the contractor decided to use deionized water as originally planned. Filling commenced on Tuesday, but was stopped shortly thereafter. A defective quick disconnect prevented the IWTS from venting. As pressure built up, water began to spray from about a dozen locations. All of the leaks except one have been fixed. A spool piece is being used to bypass a booster pump until a new mechanical seal is received. Filling restarted Friday morning and was to continue through Saturday.(1-C)

B. Tank 101-SY Transfer: The Site Representatives met with CH2MHill Hanford Group (CHG) and Department of Energy - River Protection (DOE-ORP) representatives to discuss the current waste conditions in Tank 241-SY-101 (SY-101) following the 75,000 gallon back dilution campaign completed on 1/28/00. CHG's recent efforts have been directed at monitoring what remains of the SY-101 crust as dilution water continues to dissolve crust material. Neutron mapping of the crust before and after 1/28/00 has revealed changes in crust structure consistent with crust dissolution. Flammable gas releases over the same period also clearly indicate a reduction in the crust's gas retention capability. Moreover, recent gas releases are removing considerably more gas from SY-101 than is being generated. These results are consistent with CHG's expectations. Additional neutron mapping is planned to further monitor crust destruction and help plan the addition of more water which, depending upon the amount added, could completely eliminate the crust and future buoyant displacement gas release events. CHG anticipates that the next water addition will occur during mid-February 2000. (3-A)

C. Rec. 95-2: The results of the Plutonium Finishing Plant (PFP) Integrated Safety Management System (ISMS) Verification Phase 1 review were presented. Areas for improvement included:

- ISMS description does not fully describe the current operation,
- roles and responsibilities were scatted or obsolete,
- key work control and work release procedures were not adequately utilized,
- documentation of the automated job hazards analysis has not been fully developed, and
- procedures do not ensure that feed and improvement input is applied during future work.(1-C)

D. Meeting with Deputy Manager: Mr. Sautman met with Harry Boston, the DOE-RL Deputy Manager, to discuss issues with Recommendation 2000-1, PFP, SNFP, and 233-S.

cc: Board members