

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 2, 2004

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
J. J. McConnell, Deputy Technical Director
FROM: R. T. Davis/ T. D. Burns
SUBJECT: SRS Report for Week Ending July 2, 2004

Tritium Activities: While attempting to load a reservoir in Building 233-H, it was determined that gas flow from the loading manifold to the reservoir had unexpectedly ceased. Subsequent investigation revealed that a pressure orifice on the high pressure gas line feeding the loading station had become clogged with an unidentified residue. Further evaluation revealed extensive deposition of this unidentified residue throughout the process systems.

In response to these findings, all reservoir loading operations have been suspended pending additional investigations to determine what the residue is, how it was generated, and what corrective actions are necessary to restore the functionality of the process systems.

HB-Line: WSRC continues preparations to startup HB-Line Phase II to process legacy neptunium solutions stored in H-Canyon. This week, WSRC completed field activities for the contractor Readiness Assessment (RA). The RA team is finalizing their report. HB-Line personnel are working to resolve findings and will continue demonstration runs. The DOE RA is scheduled for July 12, 2004.

H-Canyon: As a part of F-Canyon deactivation, processing of laboratory sample returns (i.e., from Savannah River National Laboratory and Central Laboratory) is being transferred from F-Canyon to H-Canyon. WSRC completed construction activities at H-Canyon in April 2004. H-Canyon successfully received and processed sample returns from the Central Laboratory and Savannah River National Laboratory in May and June, respectively.

F-Canyon: On Monday, Beta contamination was discovered on an F-Canyon worker following waste removal activities in the railroad tunnel. The likely cause was identified as poor doffing of his protective clothing. However, review of the activity also indicated that the job performed was outside the scope of the work package and that the suspension limits in the radiological work permit were exceeded.

The job activity was to remove a limited amount of waste from the railroad tunnel. After entering the area, significantly more waste than expected was found. Smears were taken during the entry and counted by the Radiological Controls Inspector (RCI). However, the RCI misunderstood the survey results and did not realize they exceeded the RWP suspension limits. There was also poor communication between the RCI and the Person In Charge (PIC). Based on this event, F-Canyon management suspended all radiological work to implement corrective actions. All RCIs and PICs are being briefed on the issues associated with this job activity.