

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 16, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending September 16, 2005

Waste on Wheels: Messrs. Massie, Sautman, and Zull reviewed the process for tank 5 bulk waste removal and plans for detecting and mitigating leaks that will likely occur during this activity (Site Rep weekly 8/12/05). The staff will brief the Board on their findings next week. The contractor was planning to have the Readiness Assessment (RA) team observe a drill this week. If the drill was successful, it was going to be used to satisfy the RA's evaluation of emergency preparedness; if not, the drill was going to be considered training and another one would be performed next week during the RA. The Site Rep expressed concern to project management about the RA team evaluating a drill prior to line management's declaration of readiness and the official start of the RA. In addition, the Site Rep communicated Board expectations that readiness reviews be used to evaluate readiness rather than being used to achieve readiness. As a result of this, the contractor manager responsible for declaring readiness asked the project if they would be able to accelerate the start of the RA. Since they were not ready to start the RA Thursday, the manager directed the project to delay the evaluated drill until after the start of the RA.

Neptunium Drums: HB-Line received the first 9975 shipping containers from K-Area that contain neptunium oxide with potentially unacceptable moisture contents (Site Rep weekly 9/2/05). The Site Rep observed workers unload the primary and secondary containment vessels from the first 9975, vent any accumulated hydrogen gas, and transfer the material into a glovebox for subsequent thermal stabilization. Due to radiological decay of neptunium into protactinium during storage, the inner can dose rates were approximately 3.5 rem/hr extremity and 700 mrem/hr whole body. Although worker doses were expected to be significant, none of the workers received more than single digit mrem whole body exposures.

H-Canyon Uptakes: In July, a continuous air monitor (CAM) alarmed while workers were trying to bleed off residual air following an attempted localized isolation of the process air system. The pressurized air was passed through a hose and discharged to a wall trench and drain. The potential for this to cause residual contamination in the drain to go airborne was not recognized during the planning process. The response to the CAM alarm was delayed because workers could not hear the alarm where they were working and obstructions blocked the flashing light. Final bioassay results showed that one of the workers present during the CAM alarm received 12 mrem committed effective dose equivalent (CEDE). Bioassay samples were also taken for the crew that unsuccessfully tried to bleed the system the night before. One of those workers was assigned a dose of 18 mrem CEDE. To address some of the identified issues, a worker will be assigned to monitor the closest CAM, additional temporary CAMs are being installed, and the design of permanently installed CAMs is being changed to cause all CAMs to alarm when one of the CAMs in a corridor measures high activity. In addition, management expectations for lockouts and line breaks are being discussed with facility personnel.