

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 24, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending November 24, 2006

H-Canyon: In mid-October, Neptunium nitrate processing was suspended when a portion of a mixer-settler became plugged with solids (Site Rep weekly 10/20/06). Analysis of the material conducted by the Savannah River National Laboratory indicated the solids were sodium cerous sulfate hydrate. Further analysis revealed the solids would not readily dissolve in nitric acid. A recovery team was assembled and early last week the contractor installed a pump to remove the solids. The solids were removed and facility personnel conducted an extensive cold chemical flush. However, while preparing to restart the process the mixer-settler plugged again. The contractor is currently developing a new path forward.

Emergency Preparedness (EP): The Site Rep observed three EP drills conducted by the Fire Department in a hypothetical Savannah River Site (SRS) facility at the Fort Gordon Fire Training Facility. The scenarios involved a three station response to extinguish a fire, rescue an injured operator, and perform decontamination as required. Trainers were able to control the size of fires and the amount of smoke generated by propane burners. The real fires are actually extinguished by firefighters with water and are not simulated. These drills are conducted annually and this year's training focused on addressing findings in earlier site drills and to improve incident scene command and control.

Although all the radiation control technicians at SRS have been trained with a video on how to doff contaminated bunker gear, these drills have made it obvious to the trainers that additional hands-on training is needed to familiarize technicians with how to handle the fire department's gear. The drills have also shown the fire department that additional practice in handling contaminated, injured personnel is warranted.

HB-Line: The Site Rep observed repackaging activities for plutonium contaminated scrap in HB-Line (Site Rep weekly 10/29/04). The facility is nearing the end of the campaign, which involved the repackaging of approximately 280 items. The few remaining items are believed to contain broken metal pieces, which may present a puncture hazard. The workers were observed wearing the correct personnel protective equipment and using tools to handle the sharp items as appropriate. A minor deficiency relating to radiologic surveys and the identification of an unforeseen puncture hazard were passed along to facility management.

Saltstone Production Facility: Due to the recently identified accumulations of grout in the process lines, the Department of Energy Readiness Assessment team added an additional pre-start finding (site Rep weekly 11/15/06). While a permanent fix is developed, facility personnel have developed a temporary modification to replace a portion of the affected grout line. The new pre-start finding also addresses a pressure relief valve on the leachate collection system which has lifted on several occasions resulting in the leachate pump shutting off.