

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 19, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending January 19, 2007

DOE O226.1: The Department of Energy Savannah River Operations Office kicked off its first two Type 1 Assessments. A Type 1 Assessment is a structured and comprehensive evaluation of a contractor's assurance system. The first two topics are emergency management and radiation protection. The 8 to 9 member teams will collect information and observe work activities for a month as they pursue 100+ page lines of inquiry.

Waste Transfer Line Replacement: The Site Rep walked down the job site for the replacement of a failed waste transfer line involving Tank 37 in H-Tank Farm. The job scope requires extensive worker activities in both a high contamination area and high radiation area. A recent contamination event raised concerns over general contamination control measures. As observed during the walkdown, several significant improvements have been made to reduce the spread of contamination and oversee the work. These improvements include fixing contamination within the work enclosure, the addition of a second air lock, installation of cameras, and increased use of contamination barriers. During the walkdown two issues were observed related to inadequate placement of an air sampling line and a broken mirror which represents a puncture hazard. The contractor agreed to address the observed issues.

H-Canyon: As a followup to a previous walkdown, the Site Reps observed workers take liquid samples from the hot sample aisle. The Site Reps did observe two potential concerns relating to a Site Condition Tag, which was approximately 18 months old, regarding the testing of emergency lighting and a bag of soda ash. The soda ash was bagged and sealed in a radiological bag but it didn't have any radiological labels on it. It wasn't clear if the bagged soda ash had already been used or was for future use.

Solid Waste Management Facility: While redefining the boundaries of high radiation areas on Pad 12, a radiological control technician identified a source of contamination on a concrete cask. Contamination levels were measured at approximately 5,000 dpm/100 cm² for both beta/gamma and alpha. The area was not posted as a contamination area. Per the Radiological Work Permit, personnel protective equipment (PPE) (e.g., gloves) was not required. Fortunately, the technician was wearing gloves as a good practice and no contamination was spread beyond that found on the cask. As a result of the event, the facility has decided to change the PPE requirements for performing similar activities in the future.

Saltstone Production Facility: Following a recent process run involving Batch 0 material from Tank 50, liquid waste was observed leaking from mixer. Further inspections determined that the liquid was leaking through the packing of the mixers. This week the packing was replaced. During the outage to repack the mixer, an abnormal condition was observed relating to the configuration of a pipe header within the vault to collect leachate for subsequent removal. The condition was dispositioned and the vault was released for additional waste disposal.