

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 26, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: M.T. Sautman, SRS Site Representative
SUBJECT: SRS Report for Week Ending October 26, 2007

Plutonium Consolidation: This month, a shipment of plutonium was received from Hanford. Unloading was delayed by a half-day because of a paperwork issue. While the first item was being unloaded, a burning smell was noticeable and the forklift soon became immobile. A walkie steering forklift unloaded the first three items before its charge was depleted. Replacing a blown fuse in the first forklift allowed the remaining items to be unloaded.

F-Canyon: A near miss occurred when an operator trainee cutting transuranic (TRU) waste with a utility knife, slipped and sliced his leather glove. Four thousand dpm alpha were detected on the inside of his dry box glove and the exterior of his surgeon's glove. A video of the event shows the operator repeatedly handling and pulling waste with his hands and slashing with the knife contrary to mandatory techniques that were implemented after the April 2006 puncture event at F/H Laboratory. Management realizes that the trainee was inadequately supervised since no one was watching the operator in the field and the first line manager monitoring the video did not take action. Additional actions are being taken to increase oversight, reexamine the hazards, identify new tools, and share lessons learned.

Saltstone: Grouting of tank 50 waste resumed after being shut down since March 2007.

Tank 48: The Request for Proposals for Fluidized Bed Steam Reforming was issued.

H Canyon: Due to photocopying, a superscript exponent in a formula was misinterpreted as an "8" rather than a "6." This caused the amount of neptunium discarded to be underestimated by two orders of magnitude, although it did not cause any limits to be exceeded. It also appears that a switch was accidentally bumped to the "calibrate" position. This disabled one of two redundant cooling water monitors for up to two days. H Canyon personnel are considering eliminating this switch since no one can remember using it nor do any procedures change its position.

Performance Indicators: The Site Rep met with the contractor to discuss site safety performance metrics. While many of the high-level indicators show positive performance, the Site Rep encouraged them to also use lower thresholds to better identify weaker areas of performance and to differentiate between proactive and reactive improvement actions.

Tritium: During welding, a piece of slag fell and ignited a mop head. The fire watch quickly extinguished the fire. Several mop heads were not covered with fire retardant tarp as required.

Tank 18/19 Mechanical Cleaning: The Site Rep was briefed on the design and testing of the sand mantis, which will be used to remove waste and fast settling zeolites from tanks 18 and 19. A grinder will size reduce the zeolite particles to make them easier to handle in the receipt tank.