

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 19, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: M.T. Sautman, SRS Site Representative
SUBJECT: SRS Report for Week Ending August 19, 2005

Mr. Contardi was at Y-12 this week.

Recommendation 2001-01: This implementation plan is being revised to address significant delays in meeting two commitments, reflect changes in facility conditions, and re-evaluate the Board's original recommendations since many of the original concerns are still applicable today. The Site Rep met with the Department of Energy to discuss how the latest draft tries to address staff comments with an earlier draft. Proposed milestones address the startup of several high-level waste management processes and facilities and the returning of tank 48 to waste service. The staff will be briefing the Board on the implementation plan shortly.

FB-Line: Last week's report described an event where a worker handling an Am-241 container received a higher than expected extremity dose and a radiological work permit suspension guideline was exceeded. A critique was held to examine the apparent causes, identify corrective actions, and generate lessons learned. Throughout the planning and execution of this job, this item was treated as just another Pu oxide source in a sample vial rather than purified Am-241 oxide from an EP-60, which were used to ship small, highly radioactive items. When an electronic pocket dosimeter alarmed the day before, the response was to use lead vests and increase the allowable extremity dose rates by a factor of six. Workers were left to use their own judgement on what shielding to use since no shielding calculations had been performed. The Site Rep encouraged facility personnel to do more research to better characterize the unique hazards of specific items or equipment.

H-Canyon: The contractor developed a management control plan to improve conduct of operations and criticality safety and allow operations to resume. The Site Rep met with engineers, trainers, and operators to see how operation procedures were revised to improve implementation of criticality controls and remove unnecessary complexity, to observe on the simulator how interlocks were added to avoid violations of criticality controls, and to review the tests used to verify operator and supervisor proficiency. In general, many of the changes simplify the procedure steps and increase the defense-in-depth of the criticality controls. However, considering the problems that were being fixed with the original procedures, it does raise questions about the rigor of procedure verification and validation in the past.

After a number of delays, the Site Rep observed the contractor bring in the first black box of Pu-238/Np-237 waste into the truckwell airlock Saturday and transfer the plywood boxes inside the black box to the cell covers with a hoist. The waste will be repackaged into standard large boxes.

Emergency Preparedness: This year's annual site emergency preparedness exercise involved the detonation of an improvised explosive device at the Low Point Pump Pit at the Defense Waste Processing Facility and other security events. The Site Rep observed the incident scene for the radiological release and control room operations. Exercise comments are being collected.