

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 7, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending July 7, 2006

M. Sautman was offsite this week.

Solid Waste Management Facility: During transuranic (TRU) waste packaging activities in the Modular Repackaging System (MRS), a continuous air monitor (CAM) alarmed. Prior to the alarm operators noticed an increase in oxygen levels within the inerted glovebox as well as an increase in activity from the CAM. The maximum air activity was 252 Derived Air Concentration-hours, which exceeded the suspension guideline. Exit surveys of one operator also revealed contamination on his protective clothing. The contractor has determined that the contamination spread resulted from a tear in the drum port sleeve. The event response appears to have been adequate. However, a formal critique was not held which is surprising considering a recent intake was determined to be the result of a CAM alarm (Site Rep weekly 3/17/06). Operations in MRS were suspended for several days while the facility was decontaminated.

Savannah River National Laboratory: While observing TRU waste drum repackaging activities, the Site Rep observed a condition not addressed by the procedure. The abnormal condition related to a Safety Basis requirement in the procedure which could not be performed as written. When it appeared that the work was continuing beyond the procedure step, the Site Rep and the Facility Representative inquired how the procedural requirements were met. Once the supervisor understood that the step could not be met, he stopped work to allow the procedure to be changed through a formal change process. A contributing factor to the event was the use of an operator aid which was not consistent with the procedure. This finding is particularly troubling since the operator aid is used to implement the Safety Basis requirement.

Contaminated Sealed Source: The Calibration Laboratory utilizes various sealed sources to calibrate radiation detection equipment. Due to radioactive decay of an old cobalt-60 source, a new 6,000 curie source was procured. Following the introduction of the new source into the gamma beam irradiator (GBI), contamination was found on the transfer cask as well as internal to the GBI. Maximum contamination levels were measured at approximately 25,000 dpm. Based on an initial investigation the contractor has ruled out the potential that the source itself is leaking. Instead, the contractor believes the source and transfer cask picked up the contamination while being loaded at the vendor's hot cell. A deliberate recovery plan has been developed to better characterize the contamination in the GBI and remove the contaminated source, which will be shipped to a commercial laboratory for decontamination.

Tank 804 Decontamination: The contractor recently completed the sludge removal from Tank 804 (Site Rep weekly's 6/2/06 and 5/19/06). The decontamination efforts were completed without incident. Followup surveys and calculations indicate residual sludge levels are significantly less than the cleanup goal.