DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 6, 2007

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending April 6, 2007

M. Sautman was offsite this week.

L-Basin Operations: This week, the Site Rep observed spent nuclear fuel handling operations at L-Basin. The observed evolutions involved the transfer and bundling of recently received aluminum clad research reactor fuel. The pre-job brief was thorough and the work was successfully executed in compliance with the procedures. The Site Rep did raise a question concerning the procedural requirements for removing nuclear criticality safety controls. Facility management has agreed to evaluate the question.

Modular Caustic Side Solvent Extraction Unit (MCU): The Site Rep walked down the MCU facility and discussed recent testing issues with representatives from DOE and WSRC. Several leaks and contactor vibration issues have been identified. A high differential pressure alarm was also received for the coalescer. Evaluation of the coalescer filter determined that the high pressure was due to a pluggage from particles in the simulant salt solution. To address the issue, a temporary modification will be made to install an additional filter upstream of the extraction contactor banks. Filter plugging is not expected during actual waste processing since the waste will be filtered as part of the Actinide Removal Process.

H-Canyon Operations: While removing bolts from a large transuranic waste box, the pressurized air line to an impact wrench failed at the interface with the wrench. A secondary safety strap prevented the air line from seriously injuring the operator. During a subsequent walkdown of the outside facilities with the contractor, several compressed air lines were identified which had deficient secondary safety straps.

While surveying an inactive contamination area (CA), contamination was found outside of the controlled area. The inactive CA is a located on an outside pad where legacy contaminated equipment is stored. The source of the contamination is likely due to degradation of a storage container. During a walkdown of the area, the Site Rep observed that the suspected container had been secured with a new radiological containment. Some of the packages are nearly 35 years old.

Watchbill Qualifications: The contractor recently reported that the software used to assist in filling required watchbills is deficient. As a result of computer delays in updating the automated qualification matrix (AQM), a shift technical engineer in HB-Line was shown to be qualified when in fact the individual was missing required training. A similar event also occurred in HB-Line nearly a year ago. In addition, a recent DOE Readiness Assessment (RA) for the Saltstone facility identified a pre-start finding for "AQM allows unqualified personnel on watchbill." It is not clear why the corrective actions from the previous event in HB-Line or the closure of the RA pre-start finding did not rectify the AQM deficiencies.