

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 8, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending September 8, 2006

Tritium Extraction Facility: The Site Reps and Mr. Owen observed the second week of field activities for the contractor Operational Readiness Review (ORR). The contractor's ORR team is conducting a thorough review of the facility's readiness and preliminary findings address disposition of deficient conditions, command and control, formality of verbal communications, procedure compliance and quality, radiological control, open work orders, and the maintenance backlog. During the ORR, the facility was able to demonstrate the ability to safely perform extraction evolutions. That being said, they were not able to demonstrate their ability to routinely conduct these evolutions without frequent work interruptions or compensatory actions to address equipment reliability issues. Although startup testing had included a 300-rod cut demonstration, problems encountered with the tritium rod preparation module required repeating procedure steps, resetting equipment, performing error recovery steps, and getting repeated authorizations via a standing order to perform steps not in the procedure. A maintenance evolution had to be reperformed when the breathing air system malfunctioned the first time. Issues with the electronic procedure system included its slow response time, operator familiarity with it, and procedures hanging up. These led to several delays, software modifications, and operators having to change workstations. Although nearly all of the above events were handled correctly, they did significantly impact operations.

Despite extensive troubleshooting and repairs this year, tritium air monitors routinely malfunction causing a limiting condition for operation to be entered. Both fire drills had to be terminated prematurely due to actual equipment issues. The first time, the fire alarm panel started receiving dozens of bad alarms (it had malfunctioned at least 4 other times in the preceding 3 weeks). When they tried to switch from reduced to normal ventilation during the second drill, all building ventilation was lost. The facility has not established a formal system health program or performance indicators yet since it is a new facility. The staff believes it would be beneficial if the Department worked out some of the above issues before starting their ORR so that they demonstrate how the work should be performed without all the recovery actions, modifications, troubleshooting, and compensatory measures. Emergency response performance is one area where the observed issues are more safety- versus efficiency-related. However, specific staff observations will be deferred since the facility evaluation is still ongoing.

HB-Line: During a waste transfer from HB-Line to H-Canyon, a data entry error was identified in which an inaccurate value was reported for a nuclear criticality safety step. The procedure required verification from a manager but the manager failed to identify the error. During the last year, several similar errors have been reported concerning verification steps. Following the most recent event and prior to a critique, fissile processing activities were paused pending further investigation.

Solid Waste Management Facility: A Technical Safety Requirement violation was belatedly declared when a supervisor directed two suspect drums to be moved without a procedure or the required authorization basis controls in place. Drum movements were suspended.