

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 3, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending November 3, 2006

Tritium Extraction Facility (TEF): In the last two weeks, the facility has entered a reduced ventilation mode five times. Last week's event was due to 4 of 20 preheater circuit loops shorting out. This week, a short in the supply fan reheater panel burned several wires. The Fire Department responded to the smoke alarm and facility heat was lost for several days. Erratic readings on a flow indicator due to a missing ground caused the supply fans to swap twice, resulting in reduced ventilation until normal ventilation could be restored. A fourth event occurred this week while swapping power sources during maintenance. When ventilation is reduced, the process buildings are evacuated and subsequent entries require 2+ workers with portable oxygen and tritium monitors.

Several faults were received during operations in the Target Rod Preparation module during a demonstration for the federal Operational Readiness Review (ORR) team. Following the first fault, operators initiated a recovery procedure but a second fault was received while attempting to clear the initial fault. With the approval of the shift manager and design authority, the operators were forced to terminate power to the operating console in order to reset the system. Several rods were eventually cut. A subsequent demonstration was also terminated when the emergency stop button could not be reset due to an electrical component not opening properly.

The ORR identified five pre-start findings (three related to electronic procedures) and ten post-start findings. While the team concluded that performance was outstanding, they did express concern that equipment failures raised reliability concerns and should be a focus for continued improvement. Furthermore, the team noted that frequent interruptions of operations complicate conduct of operations and that there is a real danger of normalization of deviation under these conditions.

Request for Proposals: This week, the Department of Energy released the draft Request for Proposals (RFP) for the future Management and Operating (M&O) contract at SRS. The M&O contract entails all site activities except for management of liquid waste programs.

Plutonium Storage. In late September, the contractor declared a Potential Inadequacy in the Safety Analysis (PISA) for plutonium storage in DOE-STD-3013 containers. The PISA resulted from new information which indicates the potential for oxygen generation within the containers. The new information is based on 1 of 39 test samples and is limited to a specific subset of plutonium oxide. Based on an additional evaluation the contractor has since determined the phenomenon represents a positive Unreviewed Safety Question.

Saltstone: This week the contractor conducted an extended grout run. By disabling the salt feed tank agitator, previously observed flow oscillations were eliminated (Site Rep weekly 10/27/06). However, the grout run was terminated shortly before the expected five hour termination point due to a gradual downward trend in the grout flow rate. A mass balance indicated that the trend was likely due to instrumentation drift. The DOE readiness assessment is expected to begin on Monday.