

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 5, 2003

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
J. J. McConnell, Deputy Technical Director
FROM: R. T. Davis/ T. D. Burns
SUBJECT: SRS Report for Week Ending December 5, 2003

Staff member M. Duncan was on-site Monday through Thursday to observe the DOE-SR Readiness Assessment for the Actinide Removal Process in Building 512-S.

H-Canyon: In November, DOE sent a Price-Anderson Enforcement letter to WSRC for a series of criticality safety violations that occurred at H-Canyon from February 2002 through June 2003. The letter identified five specific violations and noted that the problems appeared to be both programmatic and recurring in nature. However, DOE noted that no violations have occurred over the last five months and that enforcement action would not be pursued at this time. WSRC was requested to provide corrective actions that have been implemented to prevent recurrence of these problems. The WSRC response is due in mid-December.

FB-Line: Last week, both of the facility cabinet exhaust fans were inadvertently shutdown resulting in a loss of cabinet ventilation. Facility personnel responded appropriately in accordance with abnormal operating procedures and one of the fans was returned to service. No contamination release from the cabinets was observed during or following the event.

Maintenance personnel were in the process of performing calibrations on the time delay relay for the South exhaust fan. This activity requires the fan to be shut down and locked out. At the same time, maintenance personnel were performing calibrations on pressure switches associated with the North fan, which does not require the fan to be shut down. During the calibration on the North fan, the control fuse for the North fan was inadvertently shorted causing the fan to shut down. The calibration on the South fan was suspended and the fan was returned to service. The exhaust for these fans ties in to the F-Canyon exhaust system so that a limited amount of ventilation continued during the event. As a part of the corrective actions, FB-Line personnel are reviewing work packages to ensure that preventive maintenance activities are not performed on redundant systems concurrently.

Actinide Removal Process: On Monday, the DOE-SR Readiness Assessment of the Actinide Removal Process in Building 512-S commenced (site rep weekly 10/24/03). The Actinide Removal Process consists of a mono-sodium titanate strike to precipitate actinides and strontium from dissolved salt waste, and cross-flow filtration to separate the precipitates from the salt waste stream. This processing capability can support both the near-term Low Curies Salt initiative and the longer-term Salt Waste Processing Facility operations.

At the completion of field work on Friday, eight pre-start findings were identified. Of particular note among the pre-start findings was the absence of a sump pumping capability consistent with the safety basis, and a lack of dexterity with the sampling equipment that resulted in the sample vial being dropped into the shielded container during several evolutions. Evaluation of the field data continues, and the final report is expected to be completed early next week.