

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 8, 2004

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
J. J. McConnell, Deputy Technical Director
FROM: J. S. Contardi SRS Site Representative
SUBJECT: SRS Report for Week Ending October 8, 2004

Mark 22 Fuel Drop: While attempting to charge the dissolver in H-Canyon, a fuel assembly fell out of the bundle in the railroad tunnel. The assembly was one of approximately 23 assemblies that requires an extension sleeve to increase the length for proper placement in the bundle. All of the fuel in the bundle consisted of unirradiated Mark 22s, which allowed H-Canyon personnel to manually reinstall the assembly and charge the dissolver. Following the fuel drop, a measurement of the assembly with the extension revealed that the overall length did not meet the minimum requirements. Interviews with operator personnel responsible for packing the bundle yielded several potential procedural deficiencies. The procedures have been modified to prevent future reoccurrence, and engineering corrective actions are being evaluated. Westinghouse Savannah River Company (WSRC) will evaluate if any similarities exist between this event and the dropping of a Mark 16 in H-Canyon in October 2003 (site rep weekly 10/24/03).

Elevated Radiation Levels at 3H Evaporator: On 10/2/2004, an area radiation monitor located outside the 3H evaporator cell alarmed. Surveys of the area indicated a maximum dose rate of 8R/hr near a portion of pipe run external to the evaporator cell. The increased dose rate is believed to be caused by waste in the coil condensate return line indicating a coil leak. Work packages are being developed to confirm the cause of the increased radiation levels by flushing the lines with inhibited water. The warm steam coil and condensate return line were isolated when the new documented safety analysis was implemented to alleviate evaporator over-pressurization concerns.

The 2F evaporator had a similar occurrence in which the warm steam coil developed a leak and allowed waste to migrate into the steam piping (site rep weekly 12/12/03). However, the 2F evaporator steam lines are made from stainless steel while the 3H evaporator warm coil steam lines were fabricated from Hasteloy. Hasteloy was chosen for the 3H and 2H evaporators to provide better corrosion control. The premature failure of a Hasteloy component may require reevaluation of the predicted service life for other evaporator components. WSRC and Savannah River National Laboratory personnel have formed a recovery team. The 3H evaporator could be out of operation for several months.

Continuing Resolution Impacts: A continuing resolution has been implemented through mid-November. To reduce the affects of the continuing resolution, WSRC has implemented compensatory measures. As an example, the Site plans to restrict expenditures that will not result in schedule delays and continue to reduce non-labor related activities. With these compensatory measures no significant impacts are forecasted for the first quarter in 2005. However, if the continuing resolution continues into the second quarter, significant impacts could occur for projects that are partially funded. Included in these projects is the old HB-Line Ventilation Upgrade Project.