

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 27, 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 August 27, 2004

Staff member Todd Davis was onsite this week.

**NIM Alarm in HB-Line:** Earlier this week, a spurious NIM alarm was observed in HB-Line. The alarm was not continuous, and has been described as two single “dings” separated by 20 minutes followed by 3-5 seconds of continuous ringing. A facility wide evacuation was ordered following the second “ding.” Air monitoring and radiation surveys indicate that no abnormal radiation environments existed and the event was likely caused by faulty equipment. Two critiques were held to address the engineered components of the NIM system and the workers response to the event.

**TRU repackaging in F-Canyon:** The Solid Waste Management Facility contains numerous TRU waste containers that are too large to ship to the Waste Isolation Pilot Plant. A project to repackage and size reduce the waste has been initiated. A pilot project consisting of two waste containers will be performed in the truck well in F-Canyon. The two packages selected for F-Canyon will require little size reduction and relatively low source terms, approximately 30–50 plutonium equivalent grams. If successful, the remainder of the packages will be processed in the truck well in H-Canyon. A consolidated hazard analysis has been developed and a readiness assessment check list will be performed prior to start up. The first waste container is expected to be processed in F-Canyon the week of September 6<sup>th</sup>. Future waste containers may contain significant amounts of Pu-238.

**Operations Outside of Work Permit Suspension Guidelines:** During bag-out operations in FB-Line, operators continued with packaging activities despite radiation surveys indicating that the items were above the radiological work permit suspension limit. The radiation survey indicated that the two items had radiation fields of 90 and 120 mR/hr @ 30 cm. The whole body dose recorded by electronic personnel dosimeters indicate that the cumulative dose was below the suspension guideline for the evolution. However, the failure to stop work due to high dose rates has raised significant concerns. Similar conduct of operations issues have been noted in F-Canyon (Site Rep weekly 7/2/04).

**2F Evaporator:** The 2F Evaporator system has been shut down since the chromate cooling water system began leaking on July 31, 2004. The chromate cooling water system provides cooling for the 2F Evaporator feed and drop tanks and supports waste transfers that require steam. Extensive efforts to locate the leak have been unsuccessful. However, WSRC has narrowed down the leak site to a portion of the main header. A decision has been made to bypass the suspected leak site with a new above ground pipe header. Subsequent pressure testing of the new line should validate the assumption of the presumed leak site. The chromate cooling water system will need to be operable to allow deliquoring of Tank 26 in early September and introduction of new feed material from Tank 35 in mid-September.