

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 18, 2008

TO: J. Kent Fortenberry, Technical Director
FROM: M. P. Duncan and M. T. Sautman, SRS Site Representatives
SUBJECT: SRS Weekly Report for Week Ending April 18, 2008

H Material Disposition (HMD): Recently, an instrument air low pressure alarm was received at HB-Line after operators left a valve in the wrong position. Although the line-up required independent verification (IV), both operators were in the same room and performing the procedure together. Last week during a transfer in H-Canyon, tank flush solution spilled and overfilled a hot canyon sump because a flexible jumper was connected to the wrong nozzle. Despite a Specific Administrative Control requiring IV, the second operator only ensured the jumper was connected, not that it was connected to the right nozzle. Afterwards, all transfers using newly established piping routes were prohibited and all crane activities requiring IV required the HMD Project Manager's approval. The Site Rep attended one of the mandatory presentations that clearly communicated management's expectations for performing IVs.

The staff reviewed which items on the HMD Infrastructure Needs Priority List have been completed over the last 15 months, which are currently funded, and the basis for any deferrals. The likely funding shortfall for upgrades this year is smaller than anticipated earlier. The development of the upgraded HB-Line Documented Safety Analysis is on hold currently. The stack upgrade is also on hold pending a May inspection and analysis of the impacts of a collapse.

H Tank Farms: The Interim Salt Disposition Project outage to prepare the facilities for hot operations was completed. The existing contaminated simulant is being removed to support the first transfer of tank 49 waste next week. The Site Rep observed a transfer of simulant from the Decontaminated Salt Solution Hold Tank to Tank 50. The transfer pump tripped after 8 minutes due to an overload fault. The procedure incorrectly specified a pump speed that resulted in a pump runout condition.

A reliability improvement evaluation of the 3H Evaporator primary ventilation system (to support Recommendation 2004-2) concluded that the fan and fan motor have a sizing disparity. This results in current motor trips when the system tries to respond to abnormal building negative pressure conditions.

F Tank Farms: Three mechanical sludge removal runs in tank 5 have reduced the sludge volume from 16,000 to 4800 gallons. Additional runs will be conducted to further minimize the amount of chemical (i.e., oxalic acid) sludge removal required. The second full-scale demonstration of the Tanks 18 and 19 Mechanical Cleaning System was more successful. The Department has decided that both contractor and federal Readiness Assessments will be conducted for this activity. The Site Rep intends to discuss their plans since they are currently planning to do these assessments in parallel.

K Area: An engineering review confirmed an earlier evaluation which postulated that a partial structural collapse of the Assembly area could occur if certain columns were struck by motorized equipment such as forklifts (see 4/4/08 report). Additional engineering review has also determined that the issue is not limited to the two original columns of concern. The compensatory measures have been updated to widen the area where motorized vehicle use is prohibited.

F/H Lab: A laboratory technician accidentally spilled the contents of a sample vial inside a hood because the cap was loose as received, contaminating his lab coat and shoe covers and another person's shoe covers. Four people required bioassay samples. The response to the spill was not adequate. Corrective actions were identified and include a briefing to reinforce expectations for abnormal event responses.