

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 5, 2002

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 April 5, 2002

TEF Construction Events: On Tuesday, a sub-contracted construction worker was seriously injured. The worker had begun to ascend a scaffold when his foot slipped causing him to fall approximately three feet. Unable to regain his balance, he fell backward and hit his head on the concrete wall to his rear. The impact fractured his skull and rendered him unconscious. Both a hard hat and a fall protection belt were being worn by the worker at the time of the accident; however, the fall protection belt was not engaged as he had apparently not ascended to a height requiring its usage. Wet ground beneath the scaffold and the low friction of the painted metal rungs likely contributed to the fall. After being stabilized by site medical personnel, the worker was air lifted to the Medical College of Georgia. As of Friday, his condition was upgraded from critical to stable. The worker also broke a leg during the fall.

Two incidents involving inattentive equipment operation also occurred this week at the TEF construction site. First, a dump truck inadvertently hit and severed a temporary 440 Volt power feed line. There was an arc between the line and the truck cab; however, no one received a shock. Second, a compacting machine was inadvertently run into the heavy-lift crane. The crane was not damaged and the compactor was not overturned. No one was injured.

In response to the weeks events, the sites' construction contractor (BSRI) issued a conditional stop work order to the TEF construction sub-contractor (Bell Technologies). Work will resume incrementally as BSRI reviews and approves the sub-contractor safety recovery plan. NNSA-SR has determined that a type B investigation should be conducted in response to the worker's fall and preparations for this investigation are ongoing.

Tank 37 Activities: WSRC recently transferred approximately 216,000 gallons of supernate from Tank 37 to Tank 32 (site rep weekly, 3/1/02). The telescoping transfer jet installed last month was used this week to mine a salt well to the 160" level (salt surface at the 220" level). Pumping of the interstitial liquid began on Friday and is expected to complete over the weekend. The first addition of inhibited water for salt dissolution is scheduled for early next week.

3H Evaporator Status: The 3H evaporator was restarted last Wednesday upon completion of feed isolation valve and lift line jumper repairs and successful leak testing (site rep weekly, 3/22/02). After operating for several days, camera inspections over the weekend again revealed a small amount of leakage from the lift line jumper connection. The evaporator has been shut down and WSRC is preparing a recovery plan. Initial indications are that the leakage may be the result of either greater than anticipated thermal expansion in the connection or use of improper gasket materials.