

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 2, 2001

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director

FROM: R. T. Davis/ T. D. Burns

SUBJECT: SRS Report for Week Ending November 2, 2001

HB-Line Phase II: DOE-SR completed their validation review for the startup of HB-Line Phase II processing. The validation team concluded that the contractor Operation Readiness Review (ORR) was thorough and independent. The team also noted that the WSRC ORR was started without adequate closure of Management Self Assessment findings related to equipment operability and personnel conduct of operations. DOE-SR noted that adequate closure of these issues should be demonstrated prior to commencement of the DOE ORR.

On Friday, WSRC issued their final report for the contractor ORR. All pre-start corrective actions have been closed and WSRC declared that they were ready to proceed with the DOE ORR, which is scheduled to begin on November 5, 2001.

HLW Evaporators: On Wednesday, WSRC determined that operation of the 2F and 2H evaporators is inconsistent with assumptions used for analysis of an overpressure accident identified in the safety analysis. Both evaporators were shutdown at the time and will remain shutdown until this issue is resolved. The evaporator overpressure accident analysis takes credit for a vent line that is assumed to always be available. However, this vent path is not available during startup because of a different valve alignment. Without this vent path, evaporator pressure may exceed the design pressure during accident conditions. WSRC continues to investigate this scenario and whether other analysis assumptions are properly identified and validated.

Crane Malfunction: During operation of a 30 ton crane at L-Basin this week, the load block began descending towards the floor rather than in the intended up direction. No loads were attached to the crane and the load block continued to the floor (outside the basin). Subsequent investigation revealed that a retaining nut had disengaged allowing the brake drum to slide off the motor shaft and partially disengage from the brake pads. This particular holding brake was installed in 1999 and periodic inspections had not identified any problems. Based on discussions with the vendor, a locking washer should have been installed but was missing from this installation. This site is taking action to inspect all cranes to ensure proper design and installation of holding brakes.

HLW Flammable Vapor Issue: Last week, during an inspection of a Leak Detection Box (LDB) associated with the 2H Evaporator feed line from Tank 43, WSRC identified significant flammable vapors in the LDB. WSRC believes the flammable vapors were caused by oil carryover from a portable air compressor used to test transfer line jackets. Compensatory measures have been implemented to limit use of portable air compressors while this issue is investigated. The Tank 43 LDB has been flushed and WSRC is periodically monitoring the vapor space for flammable vapors.