

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 19, 2001

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers / R. T. Davis
SUBJECT: SRS Report for Week Ending January 19, 2001

2H Evaporator Readiness Assessment (RA): Staff member L. Zull was on site this week to observe the DOE RA for cleaning the 2H evaporator pot. The RA began last weekend after WSRC declared readiness on Friday. This week, the DOE team identified issues with procedures, training, equipment and calculations. The significant list of procedure deficiencies is surprising because the WSRC RA team had a similar finding, and as a result, the facility completed a field validation of the cleaning procedure. Evidently, many deficiencies were not corrected. WSRC has now requested that the DOE team suspend assessments on several procedures while WSRC corrects these problems and performs another validation. The DOE RA team now expects to finish late next week after the revised procedures are available.

The site reps have observed a number of procedure development and validation issues during RAs in the last 2 years (e.g., site rep weeklies 12/8/00, 6/2/00, 1/7/00, 12/3/99). Often such problems are followed by increased management attention for individual facilities leading to short-term corrective actions. A pragmatic review across the site of this persistent problem may be appropriate to identify lessons learned, set uniform expectations, and implement improvements.

HLW Tank 6: Last Friday, conductivity probe alarms were received for the tank 6 annulus during inclement weather. Subsequent investigation revealed about ½ inch of cesium-137 contaminated liquid in the South and West quadrants of the annulus. Tank 6 is an old-style (type I) tank, located in F-Tank Farm, and has no known leak sites. In the mid-1970s, sludge in tank 6 was allowed to dry and remained dry until 1996 when the sludge was re-wet with supernate. In late December 2000, WSRC completed a transfer of waste from H-Tank Farm to this tank (site rep weekly 1/5/01). Tank liquid level remains constant and video inspections of the annulus have not found leak sites or additional liquid. WSRC will attempt to sample the liquid early next week to determine the origin.

Canyons: There were two significant radiological occurrences in the canyons this week. Thursday evening, F-Area experienced a rash of shoe contaminations, but there appears to have been no personnel uptakes. Immediate actions (e.g., locking down F-Area, restricting personnel movement) were acceptable. The source was traced to an oily substance covering a roughly 4 inch by 16 inch area on the canyon 1st Level corridor floor, a radiologically unrestricted area. The liquid seeped from an elastomer expansion joint in the adjacent wall. The joints have been a source of contamination in both canyons before. A review of the adequacy of existing controls may be worthwhile.

On Tuesday, a sliver of contaminated material was discovered in the thumb of a worker exiting a highly contaminated area in the H-Canyon fan-house. The worker was part of the team replacing the old HB-Line HEPA filters. The sliver and surrounding tissue has been removed, and the worker's internal dose is being assessed. DOE and WSRC review of the event identified that the worker had inadvertently donned latex gloves when the procedure specified nitrile gloves (i.e., more protection). Furthermore, the job hazard analysis specified leather gloves. The latter inconsistency arose out of concerns about manual dexterity with leather gloves. This is being reevaluated.