

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 25, 2001

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers / R. T. Davis
SUBJECT: SRS Report for Week Ending May 25, 2001

FB-Line: FB-Line self-identified two significant procedure violations this week. First, operators transferred an extra can to the material characterization room and exceeded an operating limit for plutonium. The criticality control limit was not exceeded. Second, operators performing an inventory in a vault rotated cans before the cans were swiped by radiological controls inspectors. The operators were also not effectively monitoring their dose in a high radiation area. While this vault is radiologically cleaner than it has been in about a decade, experience has shown that operators need to closely follow radiological procedures when working in the vault. These types of errors specifically contributed to the plutonium uptake event on September 1, 1999. Facility management is clarifying expectations and training personnel to prevent recurrence of these events.

F-Canyon: This week, the WSRC Facility Evaluation Board (FEB) briefed facility management on the preliminary results of the FEB review. The FEB observed that F-Canyon does many functions well, but disciplined operations have declined since the last FEB review. Some specific areas identified as needing improvement include: formality of operations, contamination control, industrial safety, and the management self-assessment program. Also, this week, F-Canyon sampled the Americium-Curium storage tank (17.1). An experienced person-in-charge, procedure walkdowns in the containment hut, and a thorough pre-job brief all contributed to this operation going smoothly. Overall, the site reps observe that F-Canyon had few problems with disciplined operations this month, but it still appears appropriate for the facility to vigorously pursue the lessons learned from events earlier this year to prevent recurrence (site rep weekly 4/13/01).

2H Evaporator: On Wednesday, WSRC completed the first addition of chemical cleaning solution (nitric acid and depleted uranium) to the evaporator pot. Recently, this activity has been delayed because of problems identified with the documentation of post maintenance testing (site rep weekly 5/4/01). To resolve this issue, WSRC performed hydrostatic and leak tests and reviewed other construction documentation for completeness. The next step in the cleaning process is a pot heat-up to 85°C. After 32 hours at temperature, the pot contents will be transferred to a neutralization tank. Pot heat-up is currently delayed because of a steam leak and is now expected to begin on Saturday. Several batch cleanings will be required to complete this cleaning activity.

After cleaning is complete, WSRC will focus on activities to restart this evaporator and concentrate DWPF recycle waste. Design work for modifications required to support safely restarting this evaporator are nearing completion. Authorization Basis documents are scheduled to be submitted to DOE by the end of June. The revised AB will address criticality and deflagration issues that are impacted by the potential for solids depositing in the pot.

Salt Processing: This week, DOE released the draft Request for Proposals (RFP) for the design, construction management, and commissioning of a salt processing facility. DOE is soliciting comments from industry to incorporate into the final RFP, which will likely be released in July. Depending on the vendor proposals and the FY 2002 budget, DOE intends to select two contractors to compete on design of the technology chosen by DOE. A technology decision is expected to occur in early June. A down select to a single contractor will occur at the completion of conceptual design.