

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 10, 1999

MEMORANDUM FOR: G. W. Cunningham, Technical Director
J. Kent Fortenberry, Deputy Technical Director
FROM: C. H. Keilers / R. T. Davis
SUBJECT: SRS Report for Week Ending December 10, 1999

Staff members Kasdorf, Merritt, and Ogg were on site reviewing Recommendation 94-1 activities.

Criticality Controls: During the last two weeks, there have been four criticality control occurrences at HB-Line and H-Canyon that involved failure to adequately implement controls identified in the double contingency analysis. One of the HB-Line occurrences involved failure of both controls associated with a criticality scenario. As a result, WSRC management is conducting worker training in HB-Line to emphasize the importance of the criticality control program. (3.a)

HB-Line Activities: Low assay plutonium processing in the HB-Line phase I facility stopped in October because of a leak in the transfer line to H-Canyon. WSRC has developed an alternate transfer route and, late last week, declared the facility ready to restart. This week, DOE-SR began a focused Readiness Assessment (RA) for this restart; however, on Wednesday, WSRC requested DOE-SR to suspend their RA because of a series of criticality control violations (discussed above) and numerous procedure problems. WSRC is reevaluating facility readiness, including the adequacy of procedures, and expects to request DOE-SR to resume the RA next week. (3.a)

F-Canyon Readiness Assessment: The DOE RA for a 2nd cycle plutonium run started Wednesday. This run will adjust valence and concentration of plutonium solutions so that they can be transferred to FB-Line. Several safety-significant, hard-wired alarms have been added for neutron monitors on the mixer-settler banks. Facility management appropriately delayed the RA to allow integrated alarm testing. The DOE RA team findings are expected to include (a) control of system status after the pre-operational checklist is completed but before startup, (b) the lack of a system alignment checklist, and (c) the need for more formality in conduct of operations. (3.a)

Tank Farm Transfer Procedures: This week, WSRC identified that required Technical Safety Requirement (TSR) surveillances to verify operability of conductivity probes were not properly implemented in a procedure that has been used in H-Tank farm since May 1999. Subsequent review of other transfer procedures identified at least six others that did not properly implement this TSR surveillance. WSRC placed all waste transfer procedures on hold until a verification review is completed. In addition, WSRC plans to verify that other TSR surveillances are adequately implemented in waste transfer procedures. (3.a)

Authorization Basis Documents: In recent years, SRS personnel have become increasingly dependent on the site's intranet for access to Authorization Basis (AB) and other key documents. Last week, DOE-SR discovered that the K-Area Basis for Interim Operation (BIO) on the intranet is an older, unapproved version, and it may have been used as the sole basis for screening unreviewed safety questions. On Monday, the WSRC Chief Engineer alerted all divisions to this issue. It appears now that this misuse is limited to K-Area, and it will have no impact. SRS management is taking action to strengthen their document control process to prevent recurrence. (1.c)